The Bryocorinae, Cylapinae, Deraeocorinae and Mirinae (Insecta: Heteroptera: Miridae) from Baiteta Forest, Papua New Guinea, with a discussion of their feeding habits and a list of species of the country

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Abstract: The Bryocorinae, Cylapinae, Deraeocorinae and Mirinae (Miridae) of Baiteta Forest, a coastal forest of Madang Province, eastern Papua New Guinea, are studied. Three genera and seven species are described as new: *Baitetacoris turschi* gen. nov., sp. nov., *Carpinterocoris brailovskyi* gen. nov., sp. nov., *Missacoris sigwaltae* gen. nov., sp. nov., *Peritropis graziae* sp. nov., *Prolygus ehannoi* sp. nov., *Prolygus polhemusorum* sp. nov. and *Sabactiopus zhengi* sp. nov. The following new combinations are established: *Diognetus pilosus* (Poppius, 1914a) new combination and *Sabactiopus formosus* (Distant, 1904a) new combination. A lectotype is designated for *Diognetus intonsus* Distant, 1904c, valid name and for *Diognetus lituratus* (Distant, 1909b) new junior synonym. *Garainamiris antennatus* Carvalho, 1981b is transferred from the tribe Deraeocorini to the tribe Saturniomirini new tribal assignment (Deareocorinae). *Guisardinus neoguineanus* Carvalho in Carvalho & Gross, 1979 and *Palaucoris novaguineae* (Ghauri, 1975) are redescribed, as the male genitalia of *Eurystylus costalis* Stål, 1871. The Female genitalia of *Aristopeplus divisus* (Walker, 1873b), *Aristopeplus imperialis* Poppius, 1912a, *Garainamiris antennatus* Carvalho, 1981b, *Eurystylus costalis* Stål, 1871, *Imogen fasciatus* Carvalho, 1983, *Imogen papuensis* Carvalho, 1983, *Macrolygus rubrus* (Carvalho, 1987b), *Macrolygus viridulus* Yasunaga, 1992, *Palaucoris novaguineae* (Ghauri, 1975), *Prolygus erimensis* (Poppius, 1914a), *Warrisia huonensis* (Poppius, 1914b), *Waucoris keyensis* (Poppius, 1915a), *Waucoris longipes* (Poppius, 1915a) and *Waucoris papuanus* (Poppius, 1915a) are described for the first time. A key is provided for the species of *Macrolygus* Yasunaga, 1992 and for the Papuan *Waucoris* Carvalho, 1987b. The host-plants of the Miridae specimens collected in Baiteta Forest are analysed and a list of the species of the four subfamilies known from Papua New Guinea is given. The following species are cited for the first time from continental Papua New Guinea: *Argenis incisuratus* (Walker, 1873b), *Bertsa lankana* (Kirby, 1891), *Diognetus intonsus* Distant, 1904c, *Eurystylus costalis* Stål, 1871 and *Peritropis sulawesica* Gorczyca, 2006b.

Key words: Heteroptera, Miridae, Baiteta Forest, Papua New Guinea, new species, new combinations, male and female genitalia, host plants.

Introduction

The Miridae (Insecta: Heteroptera) of Papua New Guinea remain relatively poorly known. Numerous genera and species were described from this area since the second half of XIXth century, generally on a small number of specimens. The main works including the descriptions of these Miridae from Papua New Guinea and Papua Barat or Irian Jaya are the following: Carvalho (1956, 1981a, 1984a-c, 1985, 1986a-d, 1987a-d, 1988), Carvalho & Afonso (1977), Carvalho & Gross (1979), Carvalho & Lorenzato (1978), Carvalho & Wallerstein (1977), Distant (1904c, 1910b), Ghauri (1975), Gorczyca

(2002, 2006b), Menard & Schuh (2011), Poppius (1909, 1912a & b, 1914b, 1915a), Schuh (1984), Stonedahl (1988b), Stonedahl & Cassis (1991), Tatarnic & Cassis (2008), and Walker (1873a & b).

Moreover, a large part of these species are only known by their original description and we do not have any accurate information about their biology or distribution. Synthetic works up to the generic level are frequently lacking and the type material is dispersed in numerous museums around the World.

We provide hereafter the analysis of a collection made in a limited 1 km² area of the centre of Baiteta Forest (05°01'S, 145°45'E, Madang Province, Papua New Guinea), mainly preserved at the Institut royal des Sciences naturelles de Belgique, Brussels, Belgium (ISNB). Data on host plants – identification by P. Katik, Lae Herbarium – of numerous specimens are available. We take advantage of this information (summarised in the table 2) to discuss the feeding habits of the studied species. In addition to the specimens of Baiteta Forest, we include also in our work the specimens of some interesting Papuan species collected by the ISNB's team in Iwam Pass.

Baiteta Forest is a remnant of lowland (50 m a.s.l.) mixed rainforest, 4 km inland from the north-eastern coast of Papua New Guinea and about 40 km north of Madang town (Versteirt et al. 2008), lying on a bed of calcareous lithic arenite, with some raised coral reefs (Missa 2000). This region is classified as tropical rainy with no true dry season and has an average annual precipitation of about 3558 mm. The humidity is always high, the winter months (June to September) being the driest. The annual mean temperature is 26.5°C (values from meteorological station of Madang) (Bowman et al. 1990).

A more detailed description of Baiteta village and its neighbouring areas is available in Bowman et al. (1990).

Iwam Pass lies in the Bismarck Range, a mountain range in the central highlands of Papua New Guinea, at the border of Madang, Simbu, and Western Highlands Provinces.

Materials and methods

Collection methodology for analysed specimens

The analysed specimens were collected by an ISNB team led by Dr Olivier Missa during four sampling periods (March-June 1993, March-June 1994, April-August 1995 and April-July 1996) covering the end of the relatively wet and the beginning of the relatively dry seasons, by canopy fogging and UV light trapping (Novotny & Missa 2000; Versteirt et al. 2008). The two first campaigns were done on individual trees with large discrete crowns while during the two last campaigns, trees with intermingled crowns were sampled (Versteirt et al. 2008).

One hundred and thirteen samples were obtained by fogging the crown of 40 identified (and 33 unidentified) trees with Reslin Premium insecticide mixed with diesel (Missa 2000; Novotny & Missa 2000) (cf. Table 2 part 1 in Annex). The specimens were collected in 15 to 20 one m² collecting surface funnels placed under the crowns. The foggings were carried out under standard weather conditions, in the early morning after a rainless night and when there was no wind, for about 20 minutes, on the whole crown area (Versteirt et al. 2008). The collecting funnels were kept in place to collect the falling insects over a period of two hours after fogging (Missa 2000).

One light trap was alternately placed in the canopy of a New Guinea or Pacific walnut *Dracontomelum dao* (Anacardiaceae) and an island lychee *Pometia pinnata* (Sapindaceae) for a total of 31 nights (from 7 pm until 6 am) in 1993. Two light traps were operated, in 1996, for a total of 110 nights (also from 7 pm until 6 am) at 40 locations previously fogged in the canopy (Missa 2000; Novotny & Missa 2000) (cf. Table 2 part 2). The light traps were the Pennsylvanian model with a roof equipped with a 15 watt ultraviolet tube powered by a 12 volt car battery (Missa 2000).

Organisation of the present work

We analyse the specimens of the following four subfamilies: Bryocorinae, Cylapinae, Deraeocorinae and Mirinae. Phylinae of the tribe Leucophoropterini were studied by Menard & Schuh (2011), the other subfamilies and tribes remaining to analyse.

In our section "taxonomy", the taxa are classified by subfamily and tribe and, in each tribe, by alphabetical order of their binomina.

The reader will find a complete holonymy [1] of the taxa studied here in Carvalho's (1957, 1959)

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[1] According to Dubois (2000: 91), a holonymy is a list of available and valid nomina in their original and subsequent spellings and combinations, with their junior synonyms, their subsequent usages and the afferent bibliographical references.

and Schuh's (1995) catalogues. In addition to the original descriptions, relevant subsequent taxonomical acts and those in Schuh (1995) we also provide references published after 1995. The abbreviations used in our partial holonymies are the following (according to Schuh 1995: x-xi): DV: habitus illustration, FG: Female genitalia illustration, MG: male genitalia illustration, SEM: illustration of body parts obtained with a Scanning Electron Microscope.

For each species, before the partial holonymy if present, all specimens studied from Baiteta Forest are cited in "Additional material" section, if relevant with some additional specimens used for comparison. The specimens are classified alphabetically by country, place and, for the same locality, by order of collection dates. The type specimens are cited first, their label data are given in full. In recording these label data, we use a semicolon to separate different specimens and a slash to separate the labels of each particular type specimen. The data about non-type specimens are summarised. The "FC n°" is Chérot's unique identification number affixed to some of the examined specimens.

The depositories of the cited material are abbreviated in the text as in Kerzhner & Josifov (1999):

AMNH – American Museum of Natural History, New York City, New York, U.S.A.;
ANIC – Australian National Insects Collection, Sydney, Australia;
BMNH – The Museum of Natural History, London, United Kingdom;
BPBM – Bernice P. Bishop Museum, Honolulu, U.S.A.;
CFC – collection F. Chérot, Sombreffe, Belgium;
CNC – Agriculture and Agri-food Canada, Ottawa, Canada;
HNHM – Hungarian Natural History Museum, Budapest, Hungary;
HUES – Biology Laboratory, Hokkaido University of Education, Sapporo, Japan;
ISNB – Institut royal des Sciences naturelles de Belgique, Brussels, Belgium;
MNHN – Muséum national d'Histoire naturelle, Paris, France;
MRAC – Musée royal de l'Afrique Centrale, Tervuren, Belgium;
MNRJ – Museu naçional, Rio de Janeiro, Brazil;
NHMW – Department of Entomology, Naturhistoriches Museum Wien, Austria;
ULB – Université Libre de Bruxelles, Brussels, Belgium;
US – University of Silesia, Katowice, Poland;
USNM – United States National Museum, Smithsonian Institution, Washington D.C., U.S.A.;
ZMHF – Zoological Museum University of Helsinki, Helsinki, Finland.

The geographical coordinates of collecting locality of all examined specimens are provided in Table 1 (Annex).

For the new taxa, the following sections include the description, etymology and discussion. For the other taxa, the following sections include: the discussion and a redescription or addition to the original description if relevant. The "discussion" section includes a subsection summarising the available data on distribution, host-plants, collection methodology and feeding habits. Table 2 (Annex) gathers the information about host-plant and collection methodology for all specimens of Baiteta Forest.

Plates (colour photos) of habitus are provided at the end of the book. The corresponding figures are cited in the text as "Plate 7 fig. 1" to "Plate 18 fig. 13". Black and white photos of anatomical details and drawings of genitalia are included in the text and cited as "Fig. 1" to "Fig. 169".

The terminology of the genitalia in Miridae is purely descriptive and relatively complex (Sadowska-Woda et al. 2006). It was summarised by Carpintero & Chérot (2008), Chérot (2002) and Schmitz (1968). In the present work, we use, when it is relevant, the terms of Carpintero & Chérot (op. cit.), Davis (1955), Kelton (1959), Rosenzweig (1997), Schmitz (1968), Slater (1950) or Stonedahl (1988a), and we give some frequently used synonyms to avoid ambiguity. We use the term 'diatone" for "the maximum width of head across eyes" (Schuh 1989).

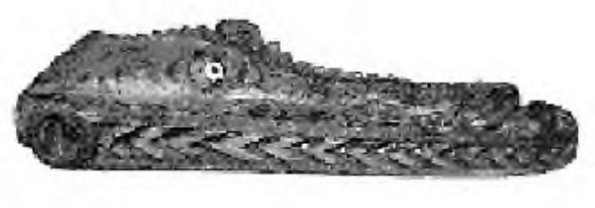
Taxonomic part

Miridae Hahn, 1833
Bryocorinae Barensprung, 1860
Eccritotarsini Berg, 1883 sensu Namyatova et al. 2015

Bromeliaemiris Schumacher, 1919

References: *Bromeliaemiris* Schumacher, 1919: 223, as new genus; Schuh 1995: 539, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Bromeliaemiris bicolor* Schumacher, 1919, by monotypy.



Bromeliaemiris morobensis **Carvalho, 1981a** (Plate 7 fig. 1)

Additional material: Papua New Guinea: Madang: 1♂: Baiteta, 17.vi.1996, O. Missa leg., *Trichadenia philippinensis* (Flacourtiaceae), light trap (FC n° 4141) (ISNB).

References: *Bromeliaemiris morobensis* Carvalho, 1981a: 55-56, as new species, DV, MG; Schuh 1995: 539, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Bromeliaemiris morobensis* Carvalho, 1981 was known by the male holotype (Carvalho 1981a: 56) from Morobe, north-west of Wau alone.
Hosts: In Baiteta Forest, *B. morobensis* was recorded only one time, by light trap, from *Trichadenia philippinensis* (Flacourtiaceae). The host plants of this species were unknown still (Schuh 2002-2013 online).

Bryocorellisca **Carvalho, 1981a**

References: *Bryocorellisca* Carvalho, 1981a: 57, as new genus; Schuh 1995: 539, catalogue; Schuh 2002-2013, online catalogue.
Type species: *Bryocorellisca pallidoemboliata* Carvalho, 1981a, by original designation.

Bryocorellisca pilosa **Carvalho, 1981a** (Plate 7 fig. 2)

Additional material: Papua New Guinea: Madang: 1♀ ISNB: Baiteta, 02.viii.1995, O. Missa leg., *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 5124); 1♀ ISNB: Baiteta, 03.viii.1995, O. Missa leg., *Artrocarpus incisus* (Moraceae), fogging (FC n° 5139); 1♂ ISNB: Baiteta, 03.v.1996, O. Missa leg., host unknown, fogging (FC n° 5123).

References: *Bryocorellisca pilosa* Carvalho, 1981a: 58-59, as new species; Schuh 1995: 539, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Bryocorellisca pilosa* Carvalho, 1981 was known by the female holotype from Bubia, Markham Valley, Morobe, Papua New Guinea alone.
Hosts: In Baiteta Forest, *B. pilosa* was recorded only by fogging, on two different hosts *Artrocarpus incisus* (Moraceae) and *Dysoxylum patigravianum* (Meliaceae). Hosts of species of the genus *Bryocorellisca* were apparently still unknown (Schuh 2002-2013 online).

Carpinterocoris **gen. nov.**

Type species: *Carpinterocoris brailovskyi* gen. nov., sp. nov.

Derivatio nominis: The new genus is dedicated to our good colleague and friend Diego L. Carpintero (Buenos-Aires), for his important contribution to the study of the Neotropical Miridae fauna, for his contribution to the study of Anthocoridae on a world-scale and in remembrance of the happy days passed with the first author on the field in Argentina. Gender: masculine. *Carpinterocoris* is a genus-group name ending in a Greek word (*χόρις* i.e. bugs in Greek) translitered into latin "-coris" without any other change. According to Article 30.1.2 of the International Code of Zoological Nomenclature (ICZN 1999: 34-35), the name takes the gender given for the terminal word in standard Greek dictionaries.
Description: Relatively large and wide, elongate to slightly rounded, almost glabrous, shining eccritotarsine. Head wide, eyes substylate, large, not on a long peduncle, labium short, thick. Vertex not carinate, unsulcate. Pronotum wide, rugulose to shagreened, almost unpunctate, not narrowed basally, shining. Pronotal callosities large, medially fused. Pronotal collar very narrow, finely pilose. Tarsus three segmented, third segment dilated distally. Claws with setiform parempodia and large pulvilli, partially covering inner surface (Fig. 4). Hemelytra rugulose, almost unpunctate, glabrous, shining. Cuneus slightly longer than wide (ratio in females: 1.44 to 2.08, ratio in males: 1.46 to 1.75), inner margin almost straight.
Discussion: The tarsus three segmented, the third segment dilated distally, the claws with setiform parempodia (i.e. unmodified in fleshy, flattened pads, convergent or divergent apically) and with pulvilli arising at the base, large, covering a part of inner surface of claws (Fig. 4), the claws not cleft at midpoint, the habitus of both sexes (Plate 7 figs 3-6), the male genitalia and the membrane with two cells, the outer cell reduced, lead us to classify *Carpinterocoris* gen. nov. in the tribe Eccritotarsini of the subfamily Bryocorinae. *Carpinterocoris* can hardly be confused with other genera of Papuan eccritotarsine. When we use Carvalho's (1981a: 51-52) key of "Bryocorini"[2] sensu lato of Papua New Guinea, we are not able to accommodate our specimens in an already described genus. The absence of neck, the eyes substylate but not on a long peduncle and close to the anterior margin of

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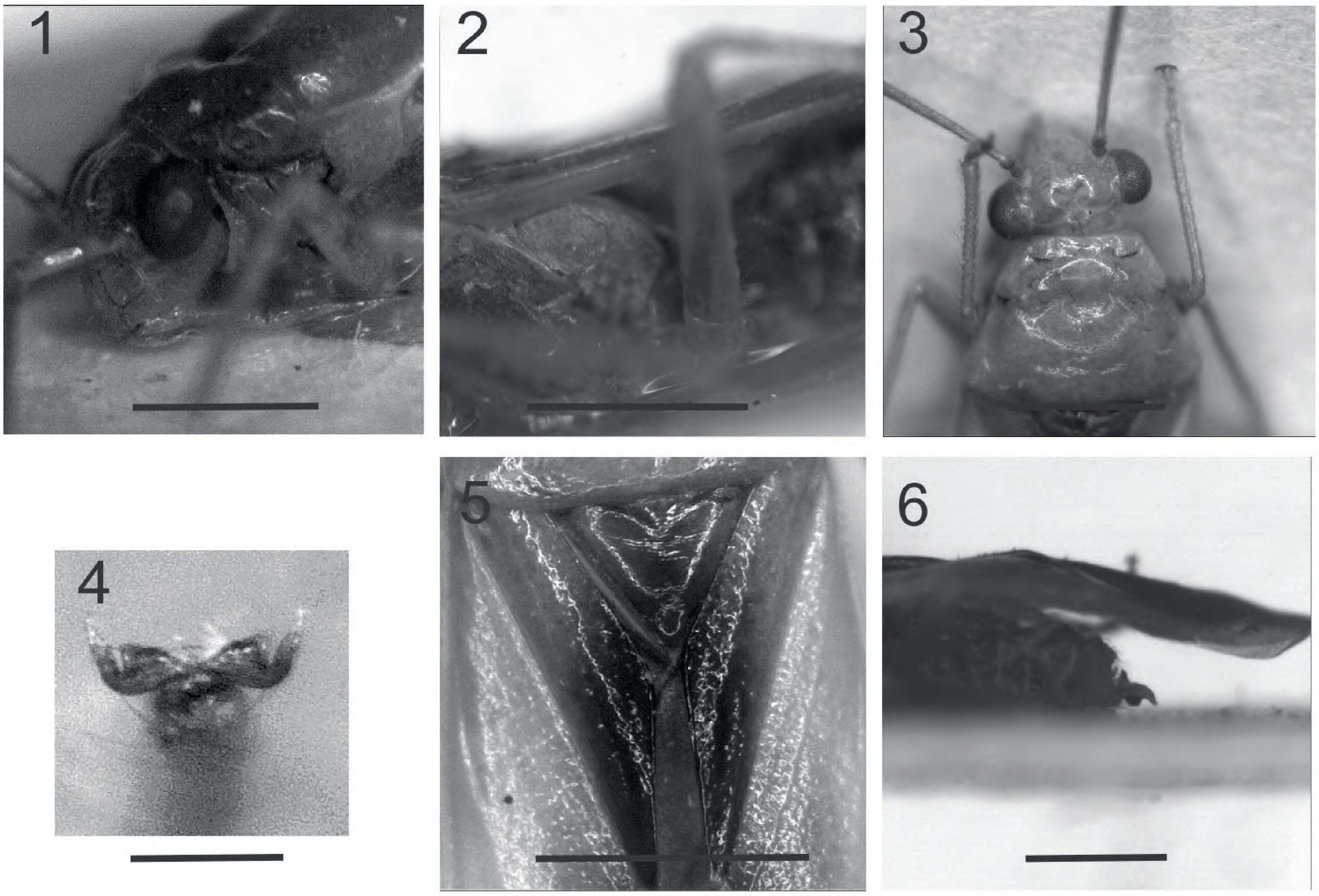
[2] Including the tribes Bryocorini and Eccritotarsini as presently defined (Namyatova et al. 2015).



Figures 1-6. *Carpinterocoris brailovskyi* gen. nov., sp. nov. 1 – Head, lateral view (FC n° 5100); 2 – Thorax, lateral view (FC n° 5100); 3 – Head, dorsal view and pronotal surface (FC n° 5087); 4 – Pretarsus and claw; 5 – Left clavus (FC n° 5087); 6 – Pygophore (FC n° 5094) [scale bar 1 mm, except fig. 2 scale bar 0.5 mm and fig. 4 scale bar 0.1 mm].

the pronotum, the clear dorsal colouration, neither globally green, nor totally black, the relatively large size (4.5 to 5.5 mm), the hemelytra not narrowed submedially and the shape of the cunei, not particularly long, exclude almost all known genera. Alone, the genera *Ambunticoris* Carvalho, 1981a, *Fronsomiris* Carvalho, 1981a and *Palaeofurius* Poppius, 1912d seem relatively similar to *Carpinterocoris* gen. nov. However, the Papuan species of these three genera are smaller (2.8 to 3.5 mm), obviously pilose, and more strongly punctate on the pronotum. Their pronotum is also more strongly narrowed basally and their cunei longer, curved on the inner margin. The setae of antennal segments are longer in *Palaeofurius* Poppius, 1912d. From the other genera of eccritotarsine of Old-World, including some poorly known taxa such *Anthropophagiotes* Kirkaldy, 1908a from Fiji, *Grossicoris* Carvalho, 1973 from New Hebrides and New Caledonia, *Gunadhya* Distant, 1920 from New Caledonia, or *Rhopaliceschatus* Reuter, 1903 from Tibet, *Carpinterocoris* could be easily separated by the habitus, mainly the total size (shorter or longer), the shape of head and hemelytra, the colouration and the dorsal punctation. The habitus of *Dioclerus* Distant, 1910a, from Sri Lanka, northern India, Indochina and Malaysia (Stonedahl 1988b) is relatively similar to those of *Carpinterocoris* gen. nov. However, the vertex of *Carpinterocoris* is lacking strong posterior carina, the second antennal segment is shorter or slightly longer than the width of the head across eyes, the pronotal collar is narrow, the pronotal disk, the clavus and the corium are shagreened but almost unpunctate and the dorsal pilosity is almost absent. The male genitalia are relatively similar to those of several Eccritotarsini, notably *Eurycipitia clara* Distant, 1883 described by Kerzhner & Konstantinov (1999: 127, Fig. 27). Both taxa possess a phallus (aedeagus) subdivided in a tiny conjunctiva and a large endophallus (vesica), the latter being membranous and with outgrowths on its surface. Their ductus seminis is narrow, basally membranous, apically more sclerotised. Their secondary gonopore is reduced, hardly visible.

The relationships of the genera in the tribe Eccritotarsini are largely unresolved still, even if Stonedahl (1988b) suggested several groupings of genera. Consequently, we are not able to identify the sister-taxon or even some close related taxa of *Carpinterocoris*.

***Carpinterocoris brailovskyi* sp. nov.** (Figs 1-12, Plate 7 figs 3-6)

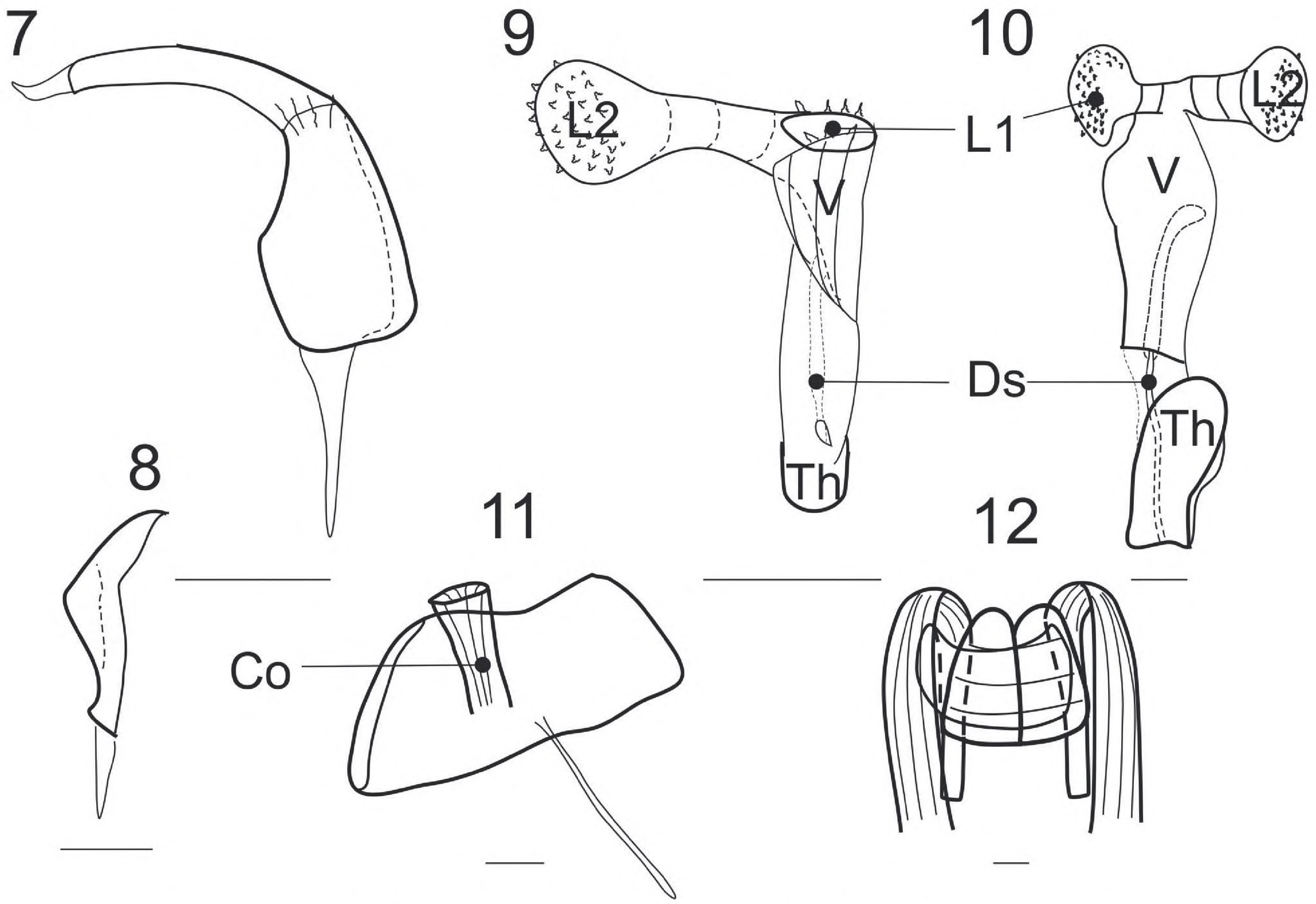
Holotype ♂ ISNB: Papua New Guinea: Madang: "*Carpinterocoris brailovskyi* gen. nov., sp. nov. FC n° 5094. Det. F. Chérot, 2011" / "Holotype" / "Holotype *Carpinterocoris brailovskyi* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I. R. Sc. N. B., Canopy Mission, Papua New Guinea (Madang Prov), Baiteta, 1995, Fogging AR14, Leg. O. Missa" [The code AR14 corresponds to *Chisocheton ceramicus* (Meliaceae)] (FC n° 5094).

Paratypes ISNB: 5♀, 1?: Baiteta, 14.vi.1995, O. Missa leg., *Chisocheton ceramicus* (Meliaceae), fogging (FC n°s 5084, 5093, 5096-5097, 5099-5100); 2♀: Baiteta, 20.vii.1995, O. Missa leg., *Celtis latifolia* (Ulmaceae), fogging (FC n°s 4142, 5087); 2♂, 6♀: Baiteta, 1995, O. Missa leg., *Chisocheton ceramicus* (Meliaceae), fogging (FC n°s 5083, 5086, 5088-5092, 5095); 1♀: Baiteta, 1995, O. Missa leg., *Celtis latifolia* (Ulmaceae) or *Planchonella* sp. (Sapotaceae), fogging (FC n° 5101); 1♀: Baiteta, 25.vii.1996, O. Missa leg., host unknown, fogging (FC n° 5085).

Derivatio nominis: The new species is named after our colleague Harry A. Brailovsky (Mexico) for his invaluable contribution on taxonomy and biology of Coreidae and Lygaeidae sensu lato on a world scale.

Description: Mid-sized relatively elongate eccritotarsine (Plate 7 fig. 3), total length of the females in dorsal view (n = 12): 4.75 to 5.59; total length of males in dorsal view (n = 2): 4.51 to 4.66; maximal width of females near the middle of hemelytra (n = 13): 1.57 to 1.86; maximal width of males near the middle of hemelytra (n = 3): 1.42 to 1.52. Head. Clypeus free, not covered by frons in dorsal view, yellowish to brownish, almost glabrous or with short white setae. Maxillary and mandibular plates small, uncarinate, lacking a tubercle, yellowish (Fig. 1). Frons slightly rounded, not striate, yellowish, brownish or greenish, almost glabrous (Fig. 1). Eyes substylate, large, glabrous, red-brown, occupying majority of head height in lateral view. Total width of diatone in females (n = 15): 1.02 to 1.19, total width of diatone in males (n = 2): 1.05 to 1.09; width of vertex in females (n = 15): 0.55 to 0.67, width of vertex in males (n = 2): 0.52 to 0.58. Vertex not carinate, unsulcate, smooth, yellowish to greenish sometimes with a fuzzy brown patch in middle. Antenna relatively short. First and second segments relatively thick, yellowish to orange-brown, first slightly curved, widened subbasally and apically, slightly narrowed medially, second slightly club-like. Third and fourth narrower and darker, grey. Pilosity of joints white, sub-erect, stiff, slightly longer than width of second segment. Lengths of the joints of females: I: 0.38 to 0.51 (n = 15), II: 1.53 to 1.82 (n = 15), III: 0.43 to 0.53 (n = 10) and IV: 0.45 to 0.57 (n = 8). Lengths of the joints of males: I: 0.43 to 0.49 (n = 3), II: 1.26 to 1.42 (n = 3), III: 0.38 to 0.43 (n = 3) and IV: 0.43 to 0.51 (n = 3). No neck: posterior margin of eyes close to anterior margin of pronotum. Labium thick, short, yellow to orange brown, its apex darker. Thorax. Pronotum (Fig. 3). Total length (collar included) in females: 0.85 to 1.26 (n = 15), total length in males (collar included): 0.89 to 1.23 (n = 3); posterior width in females: 1.48 to 1.98 (n = 15), posterior width in males: 1.42 to 1.84 (n = 3). Collar very narrow (medial length: 0.02 to 0.04), yellowish, with a very short, suberect pilosity. Pronotal callosities yellowish, large and wide, medially fused (Fig. 3). Pronotal disk almost glabrous, shining, rugulose, yellowish to brownish or greenish, with a very shallow and relatively narrow punctation. Lateral margins of disk with narrow yellow carinae posteriorily. Mesoscutum totally covered (Fig. 5). Scutellum almost glabrous, shagreened, relatively flat, unicolourous brown (Fig. 5). Length in females: 0.63 to 0.85 (n = 15), length in males: 0.59 to 0.71 (n = 3); basal width in females: 0.51 to 0.77 (n = 15), basal width in males: 0.51 to 0.53 (n = 3). Legs. Yellow. Metafemora with several long clear brown setae, black spinulae and yellowish spines. Segments of tarsi yellow-brown, claws orange-brown, typical of eccritotarsine (Fig. 4). Hemelytra dull to slightly shiny, shagreened, almost unpunctate, the punctation very shallow, narrow (Fig. 5). Pilosity sparse, the setae short, adpressed, white. Clavus opaque, yellowish to greenish basally, dark brown apically. Endocorium opaque, yellowish to greenish, sometimes with a large brown patch close to inner margin (Plate 7 fig. 4). Exocorium slightly rounded, yellowish. Outer margins of exocorium brown. Cuneus yellow to brown. Length of the cuneus in females: 0.64 to 0.84 (n = 15), length of the cuneus in males: 0.62 to 0.67 (n = 3); width of the cuneus in females: 0.36 to 0.52 (n = 15), width of the cuneus in males: 0.24 to 0.43 (n = 3). Membrane brown, veins brown. Abdomen greenish to grey-brown, with long white setae (Fig. 6).

Male genitalia: Left paramere (Fig. 7) sickle-like, arm elongate, primary apophysis hooked. Right paramere (Fig. 8) small. Phallus (aedeagus sensu Kerzhner & Konstantinov, 1999) complex (Figs 9-10). Theca (Th) sclerotised. *Ductus seminis*



Figures 7-12. *Carpinterocoris brailovskyi* gen. nov., sp. nov., genitalia of ♂ paratype FC n° 5083 and ♀ paratype FC n° 5089. 7 – Left parameres, dorsal view; 8 – Right parameres, dorsal view; 9-10 – Endophallus, different views; 11 – Dorsal wall in dorsal view; 12 – Posterior wall [scale bar 0.1 mm, except fig. 8 scale bar 0.05 mm].

(Ds) narrow, basally membranous, apically more sclerotised. Secondary gonopore and conjunctiva hardly visible. Endophallus, endosoma or vesica (V) large, with two apical membranous lobes (L1, L2).

Female genitalia: Parieto-vaginal rings hardly visible. Dorsal wall (Fig. 11) membranous, common oviduct (Co) wide. Posterior wall (Fig. 12) membranous.

Sexual dimorphism: The males are similar but apparently smaller than the females, with wider eyes.

Discussion: *Carpinterocoris brailovskyi* gen. nov., sp. nov. can be recognized by its habitus and by the genitalia of both sexes.

Hosts: *Carpinterocoris brailovskyi* gen. nov., sp. nov. was collected by fogging, in five independent collection events, on two different host plants: *Chisocheton ceramicus* (Meliaceae) and *Celtis latifolia* (Ulmaceae).

***Harpedona* Distant, 1904**

References: *Harpedona* Distant, 1904c: 418, as new genus; Carvalho 1981a: 68-72 (species from Papua New Guinea); Stonedahl 1988b: 16-32 (revision); Schuh 1995: 552-554, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Harpedona marginata* Distant, 1904c, by original designation.

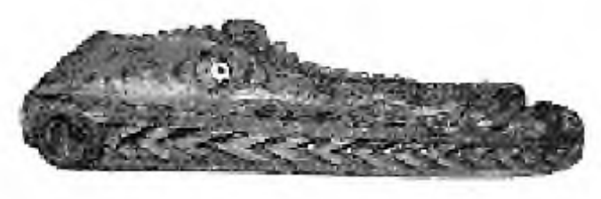
***Harpedona gressitti* Stonedahl, 1988b** (Plate 7 fig. 7)

Additional material ISNB: Papua New Guinea: Madang: 1♂: Baiteta, 09.vi.1995, O. Missa leg., *Sarcocephalus* sp. (Rubiaceae), fogging (FC n° 5126).

References: *Harpedona gressitti* Stonedahl, 1988b: 23-24, as new species; Schuh 1995: 552-554, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Harpedona gressitti* Stonedahl, 1988b was known by the male holotype (Stonedahl 1988b: 24) from Tsenga, Upper Jimmi Valley, Western Highlands, Papua New Guinea alone.

Hosts: In Baiteta Forest, *H. gressitti* was recorded only by fogging, on *Sarcocephalus* sp. (Rubiaceae). Hosts of this species were apparently unknown still (Schuh 2002-2013 online). *Harpedona marginata* Distant, 1904c, also known from Papua New Guinea, is recognized as a pest of *Dioscorea* sp. (Stondahl 1988b: 26).



***Nabirecoris* Carvalho, 1981a**
References: *Nabirecoris* Carvalho, 1981a: 78, as new genus; Schuh 1995: 558, catalogue; Schuh 2002-2013, online catalogue.
Type species: *Nabirecoris minutus* Carvalho, 1981a, by original designation.

***Nabirecoris minutus* Carvalho, 1981a** (Plate 7 fig. 8)
Additional material 1♀(?) ISNB: Papua New Guinea: Madang: Baiteta, 01.v.1996, O. Missa leg., host unknown, fogging (FC n° 5127).

References: *Nabirecoris minutus* Carvalho, 1981a: 78, as new species; Schuh 1995: 558, catalogue.
Discussion: *Nabirecoris minutus* Carvalho, 1981 was known by the female holotype alone from northwest of Nabire, south of Geelvink Bay (presently Cenderawashi Bay), Papua Barat, Indonesia (Carvalho 1981a: 78). Its host plant is unknown.

***Prodromus* Distant, 1904c**
References: *Prodromus* Distant, 1904c: 436-437, as new genus; Stonedahl 1988b: 53-88 (revision); Schuh 1995: 568-570, catalogue; Schuh 2002-2013, online catalogue.
Type species: *Prodromus subflavus* Distant, 1904c, by original designation.
= *Prodromopsis* Poppius, 1911b: 4, as new genus; Carvalho 1981a: 80-83 (species from Papua New Guinea); Stonedahl 1988b: 53 (reference for synonymy).
Type species: *Prodromus cuneatus* Distant, 1909a, by original designation, a junior synonym of *Prodromus clypeatus* Distant, 1904c.

***Prodromus oculatus* (Poppius, 1912e)** (Plate 7 fig. 9)
Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 05.vi.1996, O. Missa leg., *Celtis philippinensis* (Ulmaceae), light trap (FC n° 5125).

References: *Prodromopsis oculatus* Poppius, 1912e: 10, as new species; Carvalho 1981a: 81-82, redescription; *Prodromus oculatus*: Stonedahl 1988b: 79-81, redescription; Schuh 1995: 569, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Prodromus oculatus* Poppius, 1912e is known from Indonesia (Irian Jaya) and from Papua New Guinea, countries where it is widely distributed.
Hosts: In Baiteta Forest, *P. oculatus* was recorded only one time, by light trap, on *Celtis philippinensis* (Ulmaceae). The species is frequently found on banana trees, *Musa* spp. (Musaceae), and occurs regularly in light trap catches (Stonedahl 1988b: 80).

Cylapinae Kirkaldy, 1903
Bothriomirini Kirkaldy, 1906

***Bakeriola* Bergroth, 1920**
References: *Bakeriella* Poppius, 1915b: 46, as new genus; *Bakeriola* Bergroth, 1920: 70 (nom. nov. for *Bakeriella* Poppius, 1915b, preoccupied by *Bakeriella* Kieffer, 1910, Hymenoptera, Bethylidae); Schuh 1995: 19, catalogue; Gorczyca 2006a: 9, catalogue; Wolski & Gorczyca 2012: 7, key of Oriental Bothriomirini; Schuh 2002-2013, online catalogue.
Type species: *Bakeriella crassicornis* Poppius, 1915b, by original designation.

***Bakeriola* sp.** (Plate 8 fig. 1)
Additional material 1♂ ISNB: Papua New Guinea: Madang: Baiteta, 27.vi.1995, O. Missa leg., host unknown, fogging (FC n° 5121).

Discussion: The unique specimen available from Baiteta Forest obviously belongs to the small tribe Bothriomirini of the subfamily Cylapinae by the claws and hemelytra structures. The sole correctly preserved claw is elongate, lacking parempodia (= arolia), pulvilli (= pseudarolia) and basal tooth (but with a small subapical tooth). The hemelytra are strongly punctate, the membrane being pilose. Assigning it to a genus is more difficult. After analysis of the available literature about the Bothriomirini genera (Carvalho 1955; Gorczyca 2000; Gorczyca & Wolski 2006; Wolski & Gorczyca 2006; 2012; Yasunaga 2000), we can exclude *Afrobothriomiris* Gorczyca, 2000, *Dashymeniella* Poppius, 1914c or *Leprocapsus* Poppius, 1914c, as the habitus of our specimen is totally different, and *Bothriomiris* Kirkaldy, 1902a, as the first antennal segment is shorter than the vertex width. We classify our specimen with doubt in *Bakeriola* Bergroth, 1920.
At present, the genus *Bakeriola* Bergroth, 1920 is monospecific, including only the type species *Bakeriola crassicornis* (Poppius, 1915b) from the Mt Makiling, Luzon, Philippines Islands, known by the holotype female alone. It is possible our specimen belongs to a new species of this genus, however it seems premature to describe it. Additional specimens of both sexes of *Bakeriola* from Papua New Guinea should be obtained before eventual description.

Hosts: unknown.

Bothriomiris Kirkaldy, 1902a

References: *Bothriomiris* Kirkaldy, 1902a: 270, as new genus; Schuh 1995: 20, catalogue; Gorczyca 2006a: 9-11, catalogue; Wolski & Gorczyca 2012: 8-16, revision of Oriental species; Schuh 2002-2013, online catalogue.

Type species by monotypy: *Bothriomiris marmoratus* Kirkaldy, 1902a, a junior synonym of *Capsus dissimulans* Walker, 1873b.

Bothriomiris **sp.** (Plate 8 fig. 2)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 10.vii.1996, O. Missa leg., host unknown, fogging (FC n° 4162).

Discussion: by its habitus, our specimen belongs to the genus *Bothriomiris*. Unfortunately, specific identification of the female specimen of this genus remains difficult, the genitalia being described only in one Japanese species: *B. gotohi* Yasunaga, 2000. The genitalia of our specimen are very different from those of *B. gotohi* and we can consequently rule out membership to this species.

According to Carvalho & Lorenzato (1978), only one species of the genus *Bothriomiris* exists in Papua New Guinea: *B. lugubris* Poppius, 1915b, described from Taiwan. However, the identity of the Papuan species analysed by Carvalho & Lorenzato (op. cit.) is now challenged: it could be an undescribed species, not the true *B. lugubris* (Yasunaga 2000; Gorczyca 2006a; Wolski & Gorczyca 2012). Resolving this problem and accurately assigning our specimen will require additional specimens of both sexes from Papua New Guinea.

Hosts: unknown.

Fulviini Uhler, 1886

Bironiella **Poppius, 1909**

References: *Bironiella* Poppius, 1909: 23, as new genus; Carvalho & Lorenzato 1978: 129 (redescription); Schuh 1995: 19-20, catalogue; Gorczyca 2006a: 25-26, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Bironiella metallescens* Poppius, 1909, by original designation.

Bironiella metallescens **Poppius, 1909** (Plate 8 fig. 3)

Additional material: 1♂ & 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 30.vi.1995, O. Missa leg., *Ficus* sp. (Moraceae), fogging (FC n°s 5073, 5075); 1♂ ISNB: Papua New Guinea: Madang: Sisimangum village, 01.viii.1981, Van Goethem J. leg. (FC n°5075a).

References: *Bironiella metallescens* Poppius, 1909: 23, as new species; Carvalho & Lorenzato 1978: 130-131 (redescription, DV, MG); Schuh 1995: 20, catalogue; Gorczyca 2006a: 25-26, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Bironiella metallescens* Poppius, 1909 was described on the basis of the male holotype from Sattelberg, Huon Golf, Papua New Guinea alone. Additional specimens were later cited in the literature, from Papua New Guinea and Indonesia (Carvalho & Lorenzato 1978; Gorczyca 2006a). Few data on biology are available for this species: it was found on logs of *Castanopsis accuminatissima* and was collected in light traps (Gorczyca 2006a).

Hosts: In Baiteta Forest, *B. metallescens* was recorded only in one collection event, by fogging, from *Ficus* sp. (Moraceae).

Bironiella rubernotata **Carvalho, Lorenzato, 1978**

Additional material 1♂ ISNB: Papua New Guinea: Madang: Baiteta, 23.vii.1996, O. Missa leg., *Litsea irianensis* (Lauraceae), fogging (FC n° 5074).

References: *Bironiella ruberonotata* Carvalho, Lorenzato, 1978: 130-131, as new species, DV, MG; Schuh 1995: 20, catalogue; Gorczyca 2006a: 26, catalogue; Schuh 2002-2013, online catalogue.

Discussion: The parameres are "typical" of the genus *Bironiella* Poppius, 1909, the spiculum is as in *B. trinotata* Carvalho, Lorenzato, 1978, but its apical part is laterally hooked.

Bironiella ruberonotata Carvalho & Lorenzato, 1978 was described on the female holotype from "Boden, 11 km SE of Oereberfaren" (= Bodem, Oberfaren), Papua Barat, Indonesia alone, a specimen collected by light trap.

Hosts: In Baiteta Forest, *B. ruberonotata* was recorded only one time, by fogging, from *Litsea irianensis* (Lauraceae).

Cylapofulvius **Poppius, 1909**

References: *Cylapofulvius* Poppius, 1909: 20-21, as new genus; Carvalho & Lorenzato 1978: 129, 133-135, key of Fulvinii genera and species from Papua New Guinea; Schuh 1995: 22, catalogue; Chérot & Gorczyca 2000: 217, revision; Gorczyca 2006a: 32-50, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Cylapofulvius punctatus* Poppius, 1909, by original designation.

***Cylapofulvius punctatus* Poppius, 1909** (Plate 8 fig. 4)

Lectotype ♂ HNHM, designation by Carvalho & Lorenzato, 1978: 135: Papua New Guinea: Madang: "Stephansort, Astrolabe Bai, 1897, Biro" (= Biró) (FC n° 5050).

Additional material 1♂ US: Papua New Guinea: Madang: Baiteta, 1994, O. Missa leg., host unknown (without number).

References: *Cylapofulvius punctatus* Poppius, 1909: 20-21, as new species; Carvalho & Lorenzato 1978: 134-135 (redescription); Schuh 1995: 22, catalogue; Chérot & Gorczyca 2000: 217, revision; Gorczyca 2006a: 32-50, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Cylapofulvius punctatus* Poppius, 1909 was described using several specimens of both sexes from Astrolabe Bay, Madang Province, Papua New Guinea. Additional specimens were cited from several places in Papua New Guinea's Central Province (Poppius 1909: 23, syntypes of *C. griscens* Poppius, 1909, a junior synonym of *C. punctatus*), Morobe Province, Northern Province (Carvalho & Lorenzato 1978: 135; Chérot & Gorczyca 2000: 219), New Ireland and New Britain but also from Indonesia, Papua Barat (Carvalho & Lorenzato 1978: 135) and from the Solomon Islands (Chérot & Gorczyca 2000: 219).

Hosts: The biology of this species is virtually unknown. A specimen from Papua New Guinea, Bulolo Mankila was recorded on a log of *Gastonia* sp. (Araliaceae) according to Chérot & Gorczyca (2000: 219).

***Fulvius* Stål, 1862**

References: *Fulvius* Stål, 1862: 322, as new genus; Carvalho & Lorenzato 1978: 129, 135-142, key of Fulvinii genera and species from Papua New Guinea; Schuh 1995: 25-29, catalogue; Gorczyca 2002: 9-23, species from Oriental Region and New Guinea; Gorczyca 2006a: 32-50, catalogue; Sadowska-Woda et al. 2006: 617-636, female genitalia of several species; Schuh 2002-2013, online catalogue.

Type species: *Fulvius anthocorides* Stål, 1862, by monotypy.

***Fulvius constanti* Gorczyca, 2004** (Plate 8 fig. 5)

= *Fulvius nigricornis* sensu Carvalho & Lorenzato, 1978 nec Poppius, 1909: 136 ("redescription").

Holotype ♂ ISNB: Papua New Guinea: Madang: "*Fulvius constanti* sp. nov. Gorczyca, 2004" / "Coll. I. R. Sc. N. B., Canopy Mission Papua New Guinea, Madang prov., Baiteta, 08.vi.1993, light trap M1, Leg. *Olivier Missa*" [the code number M1 corresponds apparently to *Dracontomelum dao*, Anacardiaceae].

Paratypes 6 specimens ISNB: 1♂ & 1♀: data as in holotype; 1♂: *idem*, 13.iv.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap; 1♀: *idem*, 03.vi.1996, O. Missa leg., light trap; 1♂: *idem*, 19.vi.1996, O. Missa leg., on *Ficus* sp.(Moraceae), light trap; 1♂: *idem*, 02.vii.1996, O. Missa leg., on ?, light trap.

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 18.vi.1996, O. Missa leg., on *Trichadenia philippinensis* (Flacourtiaceae), light trap (FC n° 4175).

References: *Fulvius constanti* Gorczyca, 2004: 153-156, as new species; Gorczyca 2006a: 41, catalogue; Sadowska-Woda et al. 2006: 625-626, female genitalia; Schuh 2002-2013, online catalogue.

Discussion: *Fulvius constanti* Gorczyca, 2004 was described from Baiteta Forest on seven specimens of both sexes. Additional specimens were cited from New Britain and also from Papua Barat, Indonesia (Cyclops Mountains and Yos Sudarso Bay, formerly Humboldt Bay) by Gorczyca (2006a).

Hosts: In Baiteta Forest, *F. constanti* was recorded six times, only by light trap, from different hosts: *Celtis philippinensis* (Ulmaceae), *Dracontomelum dao* (Anacardiaceae), *Ficus* sp. (Moraceae) and *Trichadenia philippinensis* (Flacourtiaceae). Therefore, the eight known specimens of Baiteta were recorded in six different collection events on four different host plants (belonging to four different families). However, this result may not be significant. First, all specimens were attracted by light (as it is frequent in *Fulvius*) and then their origin is uncertain. Second, several *Fulvius* spp. have apparently unspecialised predaceous habits (Pluot Sigwalt & Chérot 2013). This may be the case for *F. constanti* which could explain our results. Some other Cylapinae could include both fungi and small invertebrates in their diet (Wheeler 2001).

***Fulvius nigricornis* Poppius, 1909** (Plate 8 fig. 6)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 03.viii.1995, O. Missa leg., on *Artrocarpus* sp. (Moraceae), fogging (FC n° 4176).

References: *Fulvius nigricornis* Poppius, 1909: 30, 37, 44, as new species; Schuh 1995: 28, catalogue; Gorczyca 2006a: 36, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Fulvius nigricornis* Poppius, 1909 was described from Si-Oban, Mentawai Island,

Indonesia on several specimens. The species is also cited from Sumatra and from Malaysia (Gorczyca 2006a). It would be a predator of weevils' eggs (Wheeler 2001, table 14.1, p. 284).
Hosts: In Baiteta Forest, *F. nigricornis* was recorded only once, by fogging, from *Artrocarpus* sp. (Moraceae).

***Fulvius pallidus* Poppius, 1909** (Plate 8 fig. 7)
Additional material ISNB: Papua New Guinea: Madang: 1♀ (?): Baiteta, 03.vi.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap (FC n° 4167); 1♂: *idem*, on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 4168).

References: *Fulvius pallidus* Poppius, 1909: 29, 32, 44, as new species; Carvalho & Lorenzato 1978: 138, redescription; Schuh 1995: 28, catalogue; Gorczyca 2006a: 37, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Fulvius pallidus* Poppius, 1909 was described from Simbang, Huon Golf, Papua New Guinea, on some specimens of both sexes. The species is widely distributed, from Malaysia to Micronesia (Gorczyca 2006a).
Hosts: In Baiteta Forest, *F. nigricornis* was recorded only twice, by light trap, from *Celtis philippinensis* (Ulmaceae) and *Dracontomelum dao* (Anacardiaceae).

***Fulvius stysi* Chérot, Gorczyca, 2008** (Plate 8 fig. 8)
Holotype ♂ ISNB: Papua New Guinea: Madang: "*Fulvius stysi* sp. nov. Chérot & Gorczyca, 2008" / "Coll. I. R. Sc. N. B., Canopy Mission Papua New Guinea, Madang prov., Baiteta, 1995, Fogging, AR14, Leg. Olivier Missa" [the code number AR14 corresponds to a fogging on *Chisocheton ceramicus*, Meliaceae].
Paratypes 2 specimens ISNB: 1♀: "Paratype *Fulvius stysi* sp. nov. Chérot & Gorczyca, 2008" / "Coll. I. R. Sc. N. B., Canopy Mission Papua New Guinea (Madang prov.), Baiteta, Fog (ging) AR51, 15.vi.1996, leg. Olivier Missa"; 1♀: "Paratype Fulvius stysi sp. nov. Chérot & Gorczyca, 2008"/ "Coll. I. R. Sc. N. B., Canopy Mission, Papua New Guinea, Madang prov., Baiteta, Fog(ging), AR67, 18.vi.1996, Leg. *Olivier Missa*" [the code numbers AR51 and 67 correspond to a fogging on unknown plants].

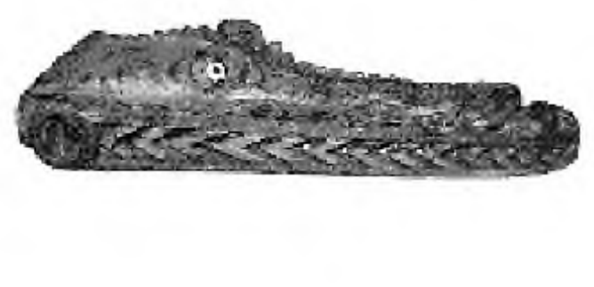
References: *Fulvius stysi* Chérot, Gorczyca, 2008: 371-374, as new species; Schuh 2002-2013, online catalogue.
Discussion: *Fulvius stysi* Chérot, Gorczyca, 2008 was described from Baiteta Forest on three specimens of both sexes. All specimens were recorded by fogging, on *Chisocheton ceramicus* (Meliaceae) and two unknown host plants.

***Fulvius subnitens* Poppius, 1909** (Plate 8 fig. 9)
Additional material: Papua New Guinea: Madang: 2♂ & 1♀ ISNB: Baiteta, 03.vi.1996, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (without number); 1♀ US: Baiteta, 03.vi.1996, O. Missa leg., light trap, host unknown (without number); 1♂ ISNB: Baiteta, 18.vi.1996, O. Missa leg., on *Trichadenia philippinensis* (Flacourtiaceae), light trap (without number) (Gorczyca 2006); 1♂(?) & 1♀ ISNB: Baiteta, 19.vi.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap (FC n° 4165, 4167b); 1♂ ISNB: *idem*, on *Ficus* sp. (Moraceae), light trap (FC n° 4166); 1♂ ISNB: Baiteta, 04.vii.1996, O. Missa leg., fogging, on *Sloanea sogeriensis* (Eleocarpaceae) (without number) (Gorczyca 2006a).

References: *Fulvius subnitens* Poppius, 1909: 30, 34, 44, as new species; Carvalho & Lorenzato 1978: 139, redescription; Schuh 1995: 29, catalogue; Gorczyca 2000: 83-84, redescription; 2006a: 41-42, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Fulvius subnitens* Poppius, 1909 was described from Papua New Guinea, Bujakori, apparently in Central Province (Carvalho & Lorenzato 1978), from other places in Papua New Guinea (Paumomu River, Moroka, also in Central Province; Astrolabe Bay, Madang Province), from Indonesia (Mentawai Archipelago, Sipora Island; Ighibirei, Papua Barat) and probably from Philippines Islands (Engano, Malakonni, maybe Engano Cape on Palaui Island). It is widely distributed, from Africa (Tanzania, Togo) and the Seychelles to Taiwan and the Pacific Islands and from Malaysia to Papua New Guinea (Carvalho & Lorenzato 1978; Gorczyca 2006a).
Hosts: In Baiteta Forest, *F. subnitens* was recorded mainly by light trap, from *Celtis philippinensis* (Ulmaceae), *Dracontomelum dao* (Anacardiaceae), *Ficus* sp. (Moraceae), *Sloanea sogeriensis* (Eleocarpaceae) and *Trichadenia philippinensis* (Flacourtiaceae). In Malaysia, the species was also recorded on *Hevea* (Gorczyca 2006a).

***Fulvius variegatus* Poppius, 1909** (Plate 8 fig. 10)
Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 09.iv.1996, O. Missa leg., on *Terminalia sepikana* (Combretaceae), light trap (FC n° 4163); 1♀ (?): *idem*, on *Pometia pinnata* (Sapindaceae), light trap (FC n° 4164); 1♀: *idem*, 15.iv.1996, *Terminalia sepikana* or *Piteleocarpus indicum* (Combretaceae and Fabaceae respectively), light trap (FC n° 4162).

References: *Fulvius variegatus* Poppius, 1909: 31, 38, 44, as new species; Carvalho & Lorenzato 1978: 142, redescription; Schuh 1995: 29,



catalogue; Gorczyca 2006a: 39-40, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Fulvius variegatus* Poppius, 1909 was described from Ighibirei, Central Province, Papua New Guinea (Carvalho & Lorenzato 1978) and from other places in Papua New Guinea. It is widely distributed in Pacific area (Gorczyca 2006a).

Hosts: In Baiteta Forest, *F. variegatus* was recorded by light trap, from *Pometia pinnata* (Sapindaceae), and *Terminalia sepikana* (Combretaceae). It would be a predator of weevils' eggs, at least in Hawaii (Wheeler 2001, table 14.1, p. 284), and is sometimes found on banana trash, sugar cane, fallen fruits, dead leaves and inside rotten logs.

Peritopis Uhler, 1891

References: *Peritopis* Uhler, 1891: 121, as new genus; Carvalho & Lorenzato 1978: 129, 143-145, key of Fulvinii genera, species from Papua New Guinea; Schuh 1995: 33-34, catalogue; Gorczyca & Chłond 2005: 167, description of a new species from Papua New Guinea; Gorczyca 2006a: 54-66, catalogue; 2006b: 401-422, revision of species of Oriental Region, key; Schuh 2002-2013, online catalogue.

Type species: *Peritropis saldaeformis* Uhler, 1891, by monotypy.

Peritropis graziae sp. nov. (Figs 13-22)

Holotype ♀ ISNB: Papua New Guinea: Madang: "*Peritropis graziae* sp. nov. FC n° 4178. Det. J. Gorczyca, 2010" / "Holotype" / "Holotype *Peritropis graziae* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I. R. Sc. N. B., Canopy Mission, Papua New Guinea (Madang Prov), Baiteta, 13.vii.1995, Fogging AR20, Leg. O. Missa" [The code AR20 corresponds to *Ficus polyantha* (Moraceae)] (FC n° 4178).

Derivatio nominis: The new species is dedicated to our colleague Prof. J. Grazia (Universidade Federal do Rio Grande do Sul, Porto Alegre), first president of the International Heteropterists Society (HIS), for her invaluable contribution on taxonomy of Pentatomidae on a world scale.

Description: Female. Body oval (Fig. 13) pale, covered with fine, short, pale, scale-like setae. Length of body 2.45, width 1.10. Head (Figs 13, 14) white, with small orange spots on clypeus and slightly tinged with orange. Length of head (in dorsal view), 0.40, width 0.52, diameter of eye 0.10. Antennae covered with very short setae. First antennal segment slightly thickened, white with small pale orange patches, second segment almost cylindrical, pale with brown pattern, pale brown in apical part. Third segment very short, pale, covered with pale, shining setae (fourth segment broken in the specimen examined). Length of antennal segments: 0.24, 0.70, 0.22. Labium not well visible in examined specimen. Thorax. Pronotum (Fig. 18) pale in middle with four brown patches, darkened on sides, anterior lobe convex with short longitudinal incision in middle. Lateral margins of pronotum distinctly elevated, posterior margin with small incision. Length of pronotum 0.35, length of anterior margin 0.52, length of lateral margins 0.38, length of posterior margin 0.88. Mesoscutum dark brown almost black, shining, with small pale patches on sides. Scutellum dark brown almost black, shining. Legs. Coxae and trochanters white, femora white with a few small spots in apical part. Tibiae pale with brown rings and patches, tarsi very short, two-segmented, second segment divided, pale brown. Claws with a distinct subapical tooth. Hind legs mutilated in examined specimen. Hemelytra white, tinged with orange, embolium with small, pale brown patches, clavus with characteristic, dark brown pattern in distal part (Fig. 21). Corium with two large, dark patches contiguous with claval suture, cuneus and membrane. Cuneus white at base, tinged with orange in apical part. Membrane pale with small brown and orange spots, venation pale, and minor cell not well visible in examined specimen. Abdomen. Body pale ventrally, abdomen white with brown patches. Female genitalia not examined.

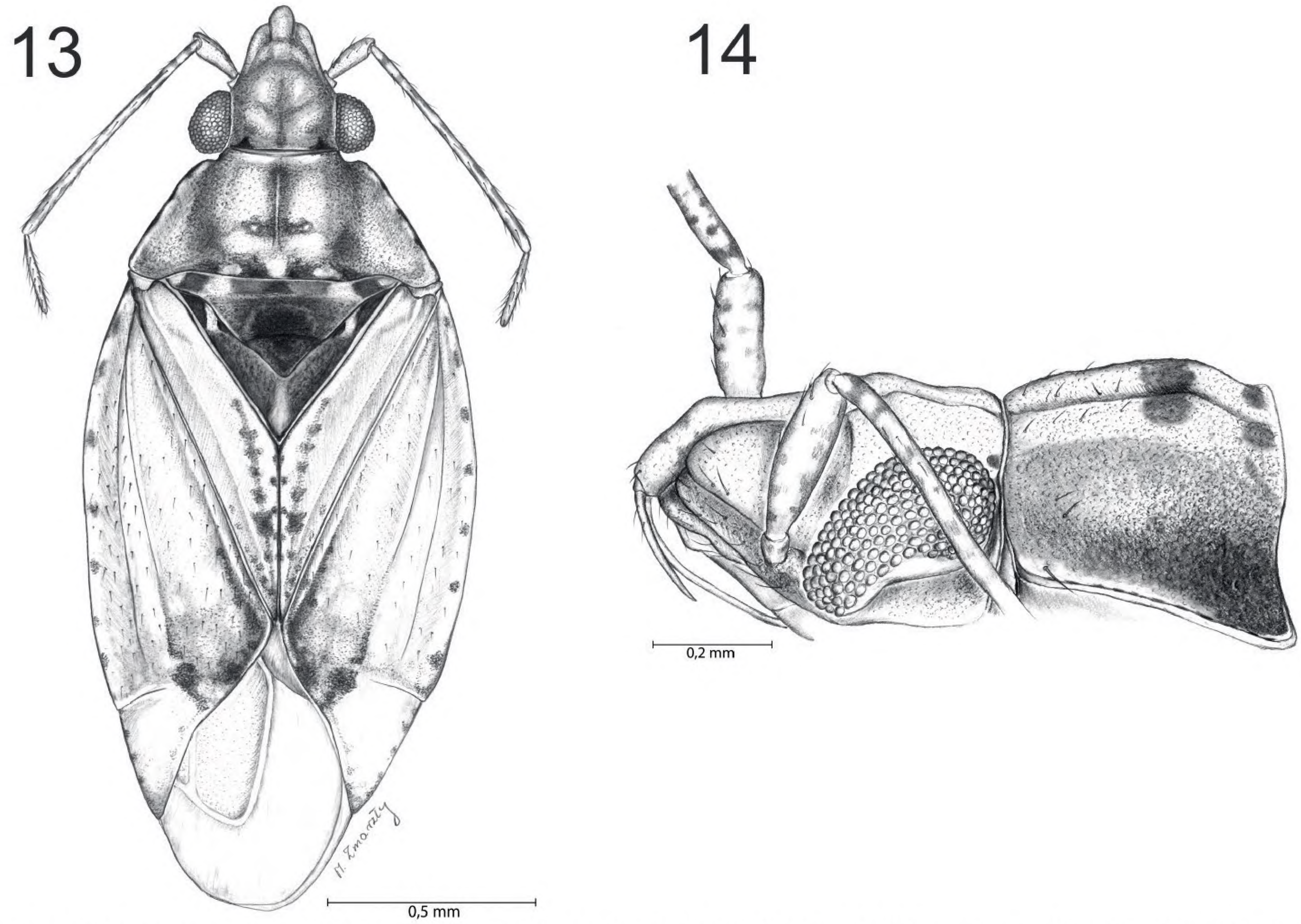
Sexual dimorphism: Male unknown.

Discussion: The new species can be distinguished within the *Peritropis suturella*-group sensu Gorczyca (2006b) by its pale body with contrasting dark scutellum, by its relatively broad vertex with a longitudinal sulcus and by its pale, short antennae.

Hosts: *Peritropis graziae* sp. nov. was recorded only once by fogging, on *Ficus polyantha* (Moraceae).

Peritropis sulawesica Gorczyca, 2006b (Plate 8 fig. 11)

Additional material ISNB: Papua New Guinea: Madang: 1♂: Baiteta, 02.v.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n° 4850); 1♂: *idem*, on *Terminalia macrocarpa* (Combretaceae) or *Sandolicum* sp. (Melicaceae) or *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 4177); 4♂: *idem*, 30.vi.1995, O. Missa leg., on *Ficus* sp. (Moraceae), fogging (FC n°s 4844, 4847-4849); 1♂: *idem*, 04.vi.1996, O. Missa leg., on *Buchaniana heterophylla* (Anacardiaceae) or *Vitex cofassus* (Verbenaceae) or *Hernandia ovigera* (Hernandiaceae), light trap (FC n°4846); 1♂: *idem*, 19.vi.1996, O. Missa leg., on *Ficus* sp. (Moraceae), fogging (FC n° 4845).



Figures 13-14. *Peritropis graziae* sp. nov., holotype ♀ FC n° 4178. 13 – Habitus, dorsal view. 14 – Head, lateral view [scale bars 0.5 mm and 0.2 mm respectively].

References: *Peritropis sulawesica* Gorczyca, 2006a: 63, catalogue, cited as “in print”; Gorczyca 2006b: 419-420, as new species; Schuh 2002-2013, online catalogue.

Discussion: *Peritropis sulawesica* Gorczyca 2006b was described on the male holotype from Dumonga-Bone National Park, near Kotambagu, Utara, Sulawesi, Indonesia alone. It has not yet recorded from Papua New Guinea.

Hosts: In Baiteta Forest, the species was recorded mainly by fogging, on *Ficus* sp., on *Neonauclea* sp. and at least on two other unidentified plants.

Vanniini Gorczyca, 1997 sensu Namyatova et al. 2015

***Palaucoris* Carvalho, 1956**

References: *Palaucoris* Carvalho, 1956: 48-49, as new genus; Carvalho 1984c: 81-82, redescription; Schuh 1995: 584, catalogue; Gorczyca 1997: 517-518, 550-552, discussion; Cassis et al. 2003: 131, discussion; Schuh 2002-2013, online catalogue.

Type species: *Palaucoris unguidentatus* Carvalho, 1956, by original designation.

= *Pseudopalaucoris* Ghauri, 1975: 611-612, as new genus, the synonymy by Carvalho 1984c: 81-83.

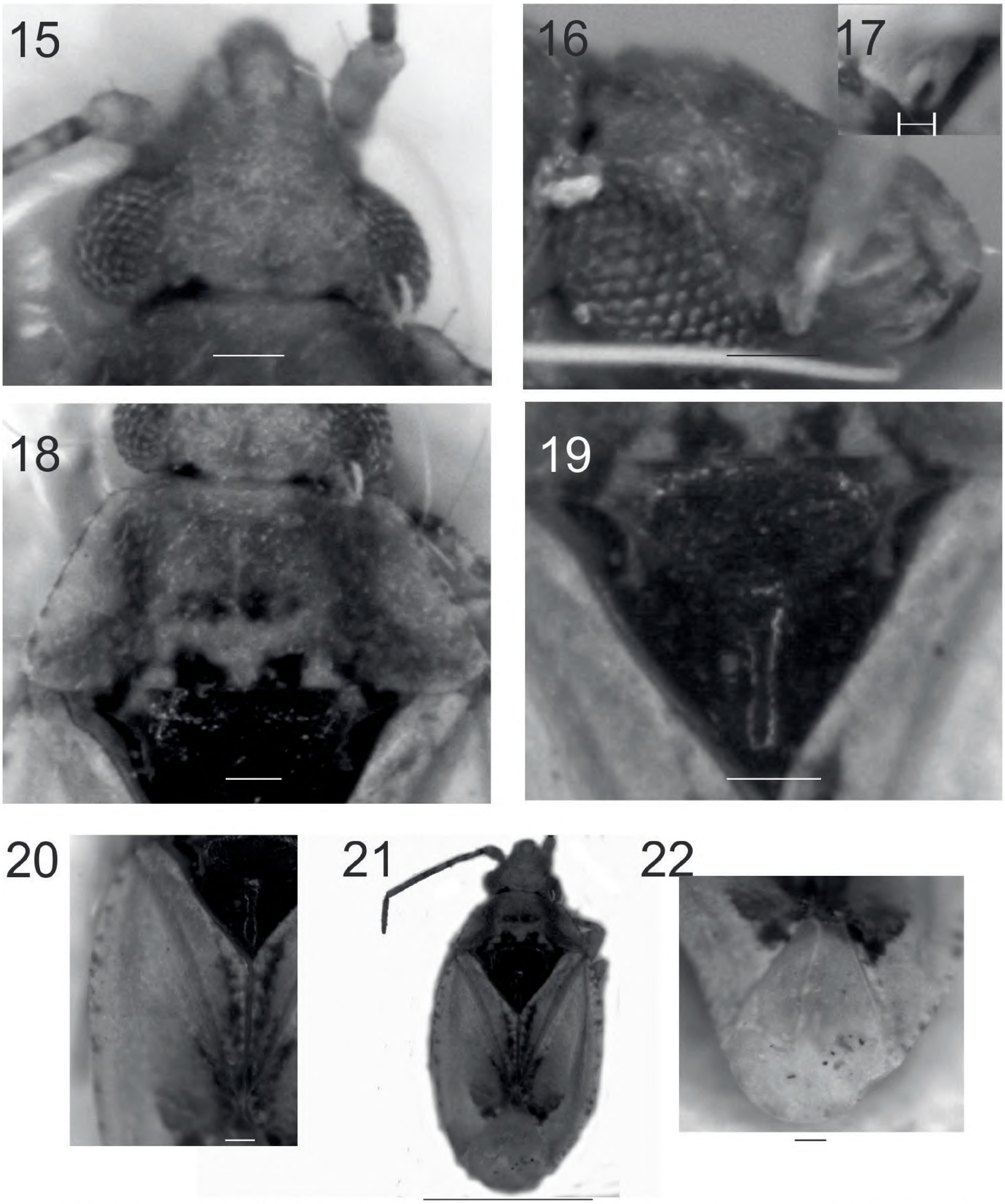
Type species by original designation: *Pseudopalaucoris novaguineae* Ghauri, 1975.

***Palaucoris novaguineae* (Ghauri, 1975)** (Figs 23-34, plate 8 fig. 12, plate 11 figs 6-7)

Additional material 2♂, 1♀ & 1? ISNB: Papua New Guinea: Madang: Baiteta, 03.vii.1995, O. Missa leg., *Artrocarpus incisus* (Moraceae), fogging (FC n°s 5079-5082).

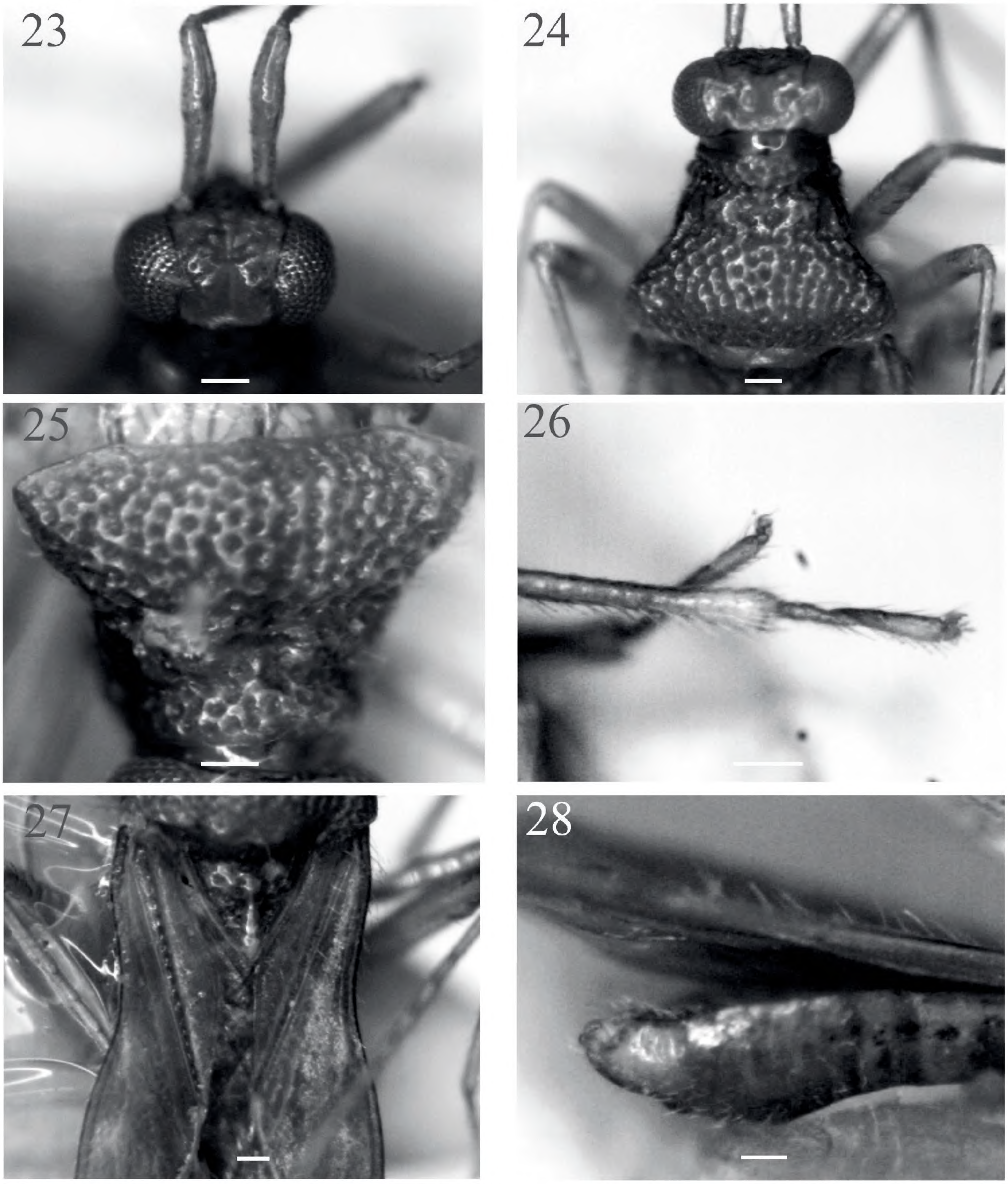
References: *Pseudopalaucoris novaguineae* Ghauri, 1975: 612-613, as new species, DV, head in dorsal and lateral views, claws; *Palaucoris novaguineae*: Carvalho 1984c: 81-84, redescription, syn. nov. and comb. nov., DV, MG; Schuh 1995: 584, catalogue; Konstantinov & Gorczyca 2001: 115, citation in key; Schuh 2002-2013, online catalogue.

Redescription: Body elongate, narrow, total length: 2.68 to 2.75 in males (n = 2), 2.50 in female (n = 1); width of hemelytra (in middle): 0.62 to 0.80 in males (n = 2), impossible to measure on available female. Outer margins of corium strongly curved in the middle, narrowed submedially, widened subbasally and, more clearly, subapically (Fig. 27, plate 8 fig. 12). Head. Elongate, sub-vertical. Clypeus relatively ventral, concave medially, covered by frons in dorsal view, yellow to brown tinged with red, with few long white setae. Maxillary and mandibular plates uncarinate, devoid of tubercle, widely and deeply punctate, yellow brown, with few long white setae, punctation sometimes dark brown to black, sometimes yellow-brown. Frons vertical, swollen, medially sulcate, slightly shagreened but unpunctate to widely and shallowly punctate, yellow-brown to green-brown, almost glabrous. Eyes large, red, occupying about 2/3 of body height in lateral view. Total width of diatone: 0.50-0.51 in males (n = 2), 0.63 in female (n = 1); width of vertex: 0.20 to 0.24 in males (n = 2), 0.25 in female (n = 1). Vertex yellow-brown

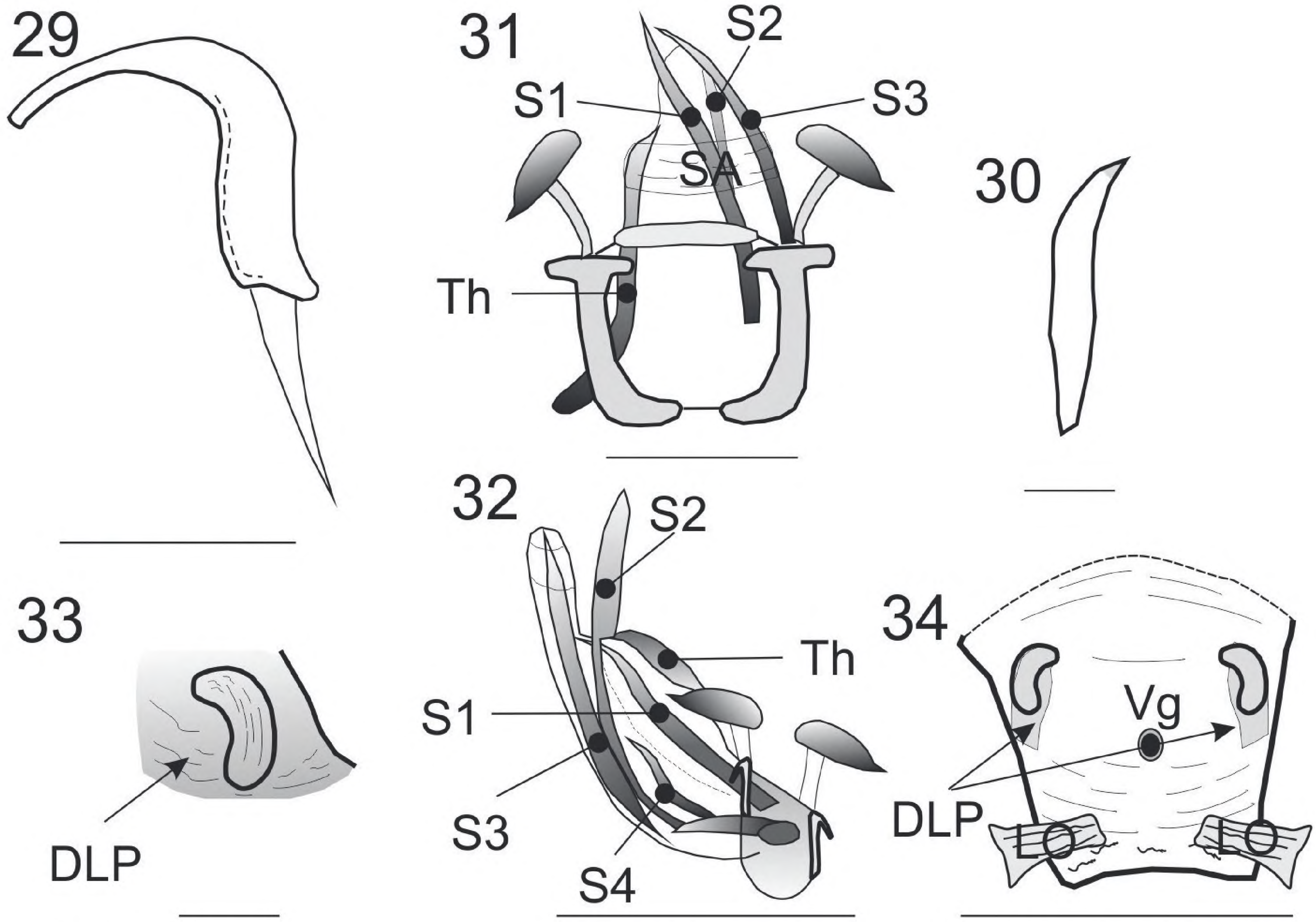


Figures 15-22. *Peritropis graziae* sp. nov. holotype ♀. 15 – Head, dorsal view; 16 – Head, lateral view; 17 – Evaporatory area; 18 – Pronotal surface; 19 – Scutellum, dorsal view; 20 – Left clavus and corium; 21 – Habitus, dorsal view; 22 – Cunei and membrane [scale bar 0.1 mm, except fig. 21 scale bar 1 mm].

with a red line along eyes, some small sub-erect white setae and pair of elongate white setae close to posterior third of inner margin of eyes. Surface of vertex unpunctate, medially sulcate, with narrow dark-brown to black carinate posterior margin (Figs 23-24). Posterior margin prolonged laterally by small triangular ivory white area. Antenna elongate. First segment yellow-brown, widened medially, club-like; second, third and fourth segments narrower, second yellow-brown, third and fourth dark red-brown. Lengths of joints in males (n = 2 except otherwise mentioned): I: 0.42-0.43, II: 0.97-1.03, III: 0.49 (n = 1), IV: damaged or lacking. Lengths of the joints in female (n = 1): I: 0.49, II: 1.03, III: 0.47 and IV: 0.37. Labium thick, yellow, apically dark red, reaching middle coxae. Thorax. Pronotum (Figs



Figures 23-28. *Palaucoris novaguineae* (Ghauri, 1975). 23 – Head, dorsal view (FC n° 5082); 24 – Head and pronotal surface (FC n° 5082); 25 – Pronotal surface, detail (FC n° 5080); 26 – Tarsus and claw (FC n° 5080); 27 – Left clavus and scutellum, dorsal view; 28 – Abdomen, lateral view (FC n°5081) [scale bar 0.1 mm].



Figures 29-34. *Palaucoris novaguineae* (Ghauri, 1975), genitalia of both sexes. 29 – Left parameres, dorsal view; 30 – Right parameres, dorsal view; 31-32 – Endophallus, different views; 33 – Right parieto-vaginal ring, dorsal view; 34 – Dorsal wall, dorsal view [scale bar 0.1 mm, except fig. 30 and 33 scale bar 0.05 mm].

24-25). Total length (collar included) in males (n = 2): 0.54 to 0.61; total length (collar included) in female (n = 1): 0.54. Posterior width in males (n= 2): 0.53 to 0.74; posterior width in female (n = 1): 0.74. Collar large (0.12 to 0.16 in males, n = 2; 0.19 in female, n = 1), medially elevated comparatively to callosities area, with sub-erect white setae. Surface of collar yellow brown, obviously punctate, punctation wide and deep. Callosities rounded, yellow brown, separated medially and from lateral margins of disk. Pronotal disk with numerous, sub-erect white setae, easy to see in lateral view. Pronotal surface yellow brown to red-brown with a wide and deep punctation. Humeral angles rounded, posterior margin of disk slightly curved, lateral margins S-like, lacking carina or carinal knob. Mesoscutum narrow, brown. Scutellum (Fig. 27). Length in males (n = 2): 0.32 to 0.37; length in female (n = 1): 0.33. Basal width in males (n = 2): 0.29 to 0.30; basal width in female (n = 1): 0.32. Surface widely and deeply punctate, with wide ivory white calose medial line absent basally. Legs. Femora yellow-brown, with black spinulae and elongate, sub-erect white setae. Metafemora with suberect, white setae, a row of elongate, strong yellowish spines originating from red-brown tubercles and a row of black spinulae. Tarsus yellow, claws (Fig. 26) red-brown. Hemelytra (Fig. 27). Outer margins of hemelytra and corium strongly curved in middle, narrowed submedially, widened sub-basally and, more clearly, subapically, carinate, carinae red, with relatively long, white setae. Clavus basally opaque, apically slightly translucent, yellow-brown, with a row of deep and wide red-brown punctures along clavo-corial suture. The inner margin of clavus yellow-brown. Pilosity elongate, erect, white (Figs 27-28). Sericeous or woolly setae absent. Corium translucent, yellow-brown, corial vein brown, inner margin yellowish. Pilosity elongate, erect, white. Sericeous or woolly setae absent. Exocorium difficult to separate from endocorium. Cuneus of male small, almost triangular, yellowish, with few suberect black setae. Cuneus of female similar but very difficult to delimitate from small cell of membrane and from corium. Cuneal fracture literally absent. Veins thick, yellow to brown or red, inner margin of corium thick, vein-like, yellow-brown basally, red subapically, yellowish apically. Membrane grey-brown, difficult to separate from endocorium by texture. Large cell in males elongate and subtriangular basally, not reaching beyond apex of cuneus. Small cell of males reduced, inner margin curved basally, posterior margin straight, thickened near the cuneus. Large cell in females half moon-like. Small cell subtriangular, posterior margin reaching beyond apex of cuneus and related to it by the outer margin. Abdomen: brown with short white setae. Pygophore (Fig. 28).

Male genitalia: Left paramere (Fig. 29) sickle-shaped. Right paramere (Fig. 30) reduced, primary apophysis acute. Phallus or aedeagus (Fig. 31-32) with numerous sclerites (S1-S4) or sclerotised areas (SA, Fig. 31), theca (Th) strongly sclerotised.

Female genitalia: Parieto-vaginal rings (Fig 33) narrow, anterior, latero-outer and posterior margins convex, devoid of sclerite, latero-inner margin concave. Dorsal labiate plate (DLP) sclerotised, lateral oviducts (LO) obviously separated. Dorsal wall membranous (Fig. 34). Posterior wall membranous.

Discussion: The habitus and the very peculiar claws, with large blade-like apically curved parempodia, one divergent, the other convergent, with small pulvilli and with pointed teeth, the widely and deeply punctate pronotum and scutellum, the strongly sclerotised hemelytra apparently lacking cuneus, lead us to include the analysed specimens in the genus *Palaucoris* Carvalho, 1956. The unicolorous body and antennae, the male genitalia and the biareolate membrane are characteristic of *P. novaguineae* (Ghauri, 1975). The habitus of this species is relatively similar to those of several so-called Hyalopeplini (cf. Plate 11 figs 6-7), even if the genus *Palaucoris* is probably related to Vaniini (Namyatova et al. 2015), presently included in Cylapinae. This genus was classified, based on its claw structures, succesively in its own subfamily or in Bryocorinae. Despite its habitus, it differs notably from true Mirinae.

P. novaguineae was described by Ghauri (1975: 612-613), on the basis of the female holotype and two immature paratypes from Papua New Guinea, Western Highlands Province, Jimi River Valley. Carvalho (1984c: 84) mentions additional specimens from Indonesia, Papua Barat (Waghete) and from Papua New Guinea (north west of Kainantu, Eastern Highlands; Goroka, Eastern Highlands; Watut, Morobe).

Hosts: In Baiteta Forest, *P. novaguineae* (Ghauri, 1975) was collected by fogging, only one time, on *Artrocarpus incisus* (Moraceae). The species was also found under bark of *Araucaria husteinii* (Araucariaceae) (Ghauri 1975: 612).

Vanniusoides Carvalho, Lorenzato, 1978

References: *Vanniusoides* Carvalho, Lorenzato, 1978: 127, as new genus; Schuh 1995: 39, catalogue; Gorczyca & Konstantinov 2001: 107, redescription; Cassis et al. 2003: 145, redescription; Gorczyca 2006a: 24, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Vannius brevis* Poppius, 1909, by original designation.

Vanniusoides brevis (Poppius, 1909) (Plate 8 fig. 13)

Additional material: 1♂ ISNB: Papua New Guinea: Madang: Baiteta, 09.vi.1995, O. Missa leg., *Sarcocephalus* sp. (Rubiaceae), fogging (FC n° 5138) (ISNB); East Sepik: 1♀ HNHM: Amok, 06.i.1960, Maa T. C. leg. (Compared with the type by J.M.C. Carvalho) (FC n° 5060).

References: *Vannius brevis* Poppius, 1909: 15-16, as new species; *Vanniusoides brevis*: Carvalho & Lorenzato 1978: 128-129, redescription, DV, MG, new combination; Schuh 1995: 24, catalogue; Gorczyca & Konstantinov 2001: 107-108, redescription, head; Cassis et al. 2003: 146, citation in key; Gorczyca 2006a: 24, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Vanniusoides brevis* (Poppius, 1909) was described on the basis of the female holotype from Simbang, Huon Golf, Papua New Guinea alone. Few additional specimens were later cited in the literature, from Geelvink Bay, Papua Barat, Indonesia (Carvalho & Lorenzato 1978). The biology of this species is totally unknown. It is also the case for the species of *Vanniusoides* described from the Fiji Islands and Queensland (Cassis et al. 2003: 124). *V. clypeatus* Gorczyca, Konstantinov, 2001 was collected on a river bank, between the stones (op. cit.: 109).

Hosts: In Baiteta Forest, *V. brevis* was recorded only once, by fogging, from *Sarcocephalus* sp. (Rubiaceae).

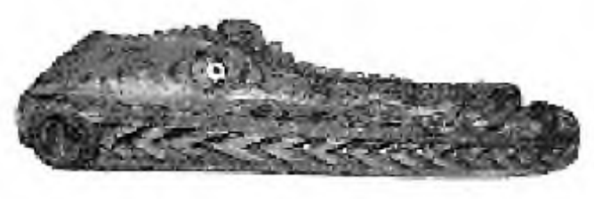
Deraeocorinae Douglas, Scott, 1865

Deraeocorini Douglas, Scott, 1865

Araspus Distant, 1904

References: *Araspus* Distant, 1904a: 112, as new genus; Carvalho 1984a: 59-60, revision; Schuh 1995: 597, catalogue; Schuh 2002-2013, online catalogue.

Type species by monotypy: *Lopus partilus* Walker 1873b.



Araspus gressitti **Carvalho, 1984a** (Plate 9 fig. 1)
Additional material ISNB: 1♀: Papua New Guinea: Madang: Baiteta, 11.v.1995, O. Missa leg., host unknown, fogging (FC n° 5119); 1♂: Baiteta, 04.vii.1996, O. Missa leg., *Sloanea sogeriensis* (Eleaocarpaceae), collecting method unknown[3] (FC n° 5120).

References: *Araspus gressitti* Carvalho, 1984a: 62, as new species; Schuh 1995: 597, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Araspus gressitti* Carvalho, 1984a was described using four specimens of both sexes, all from New Britain, Papua New Guinea. No additional specimen was cited in the literature since Carvalho's original description. The biology of the species is unknown.
Hosts: In Baiteta Forest, one specimen was recorded from *Sloanea sogeriensis* (Eleocarpaceae) with unknown methodology and the other specimen was collected by fogging, on an unknown host plant.

Baitetacoris **gen. nov.**
Type species: *Baitetacoris turschi* gen. nov., sp. nov.

Derivatio nominis: The new genus is named according to the local place where it was recorded for the first time: Baiteta Forest, Madang, Papua New Guinea. Gender: masculine.
Description: Relatively small, rounded, almost glabrous and shining deraeocorine. Head shorter than pronotum, frons vertical, vertex carinate, unsulcate (Fig. 35). Pronotal collar relatively wide, tomentose. Pronotal disk widely and deeply punctate (Figs 35-36), lacking transverse sulcus, laterally carinate, without callosities. Claws strongly toothed at base, devoid of pulvilli. Scutellum swollen, devoid of tubercles; lateral margins tomentose (Plate 9 figs 9-10). Hemelytra opaque, shining, almost glabrous and unpunctate (Plate 9 fig. 8). Exocorium unicolourous. Membrane glabrous.
Discussion: The rounded habitus, the head shorter than the pronotum, the frons almost vertical, the relatively long antenna, the wide, tomentose pronotal collar, the wide and deep punctation of pronotal disk, the pronotal disk lacking a proeminent, transverse sulcus around the callosities, the reduced callosities, the claws strongly toothed at base but devoid of pulvilli and with setiform parempodia (i.e. unmodified in fleshy, flattened pads, convergent or divergent apically), the opaque hemelytra and the glabrous membrane all lead us to include the taxon in the tribe Deraeocorini of the subfamily Deraeocorinae. *Baitetacoris* cannot be confused with other genera of Papuan Deraeocorini. *Morobemiris* Carvalho, 1985 is a larger bug (total length: 6.8 mm) with a proeminent scutellum. The posterior margin of the pronotal disk near humeral angles of *Gressitocoris* Carvalho, 1985 is concave. The hemelytra of *Karubacoris translucidus* Carvalho, 1985, of all *Papuacoris* Carvalho, 1985 and of all *Deraeocoris* Kirschbaum, 1856 species (including the species originally classified in *Cimicicapsus* Poppius, 1915b[4]) are strongly, widely and deeply, punctate. The clavus and at least the endocorium of *Araspus* Distant, 1904a are also widely and deeply punctate. The anterior area of pronotum of *Karamuicoris* Carvalho, 1985 is divided by four longitudinal ridges. All of these character states are absent in *Baitetacoris* gen. nov. The genera *Angerianus* Distant, 1904c and *Garainamiris* Carvalho, 1981b, both known from Papua New Guinea and classified in Deraeocorini until now, are more elongate, with different scutellum, embolium, antenna, dorsal pilosity etc.
There are few already described deraeocorine species in Australia. Only five genera are cited from the continent: *Deraeocoris* Kirschbaum, 1856, *Eurybrochis* Kirkaldy, 1902a, *Fingulus* Distant, 1904b, *Pseudocamptobrochis* Poppius, 1911c and *Termatomiris* Ghauri, 1975 (Cassis & Gross 1995). All of these genera differ from *Baitetacoris* by the habitus, particularly by the pronotal shape, dorsal punctation, dorsal pilosity and for the most of them the total length.
The Oriental or East Palaearctic genera *Cimidaeorus* Hsiao, Ren, 1983, *Dortus* Distant, 1910a, *Lamprocarnum* Reuter, 1891 and *Paranix* Hsiao, Ren, 1983 can also be separated of the new genus by their habitus, particularly by the hemelytral punctation.
Three of the four genera of Deraeocorini of New Zealand – *Poecilomiris* Eyles, 2006, *Reuda* White, 1878 and *Romna* Kirkaldy, 1906 – have lateral carinae on pronotum, as *Baitetacoris* gen. nov. However, *Poecilomiris* and *Romna* differ by the habitus (mainly their elongate shape, larger size and wide hemelytral punctation), *Reuda* by the

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[3] The labels are ambiguous about the methodology used to collect this specimen, light or fogging, the both being cited on separate labels.

[4] *Cimicicapsus* Poppius, 1915 was treated as a junior synonym of *Deraeocoris* Kirschbaum, 1856 by Schuh (1995) but as valid by some other recent authors (for example: Yasunaga et al. 2001). Its habitus is *Deraeocoris*-like, with a strong dorsal punctation and a relatively long pilosity.

head structure (the oblique frons and vertex are below top of the eyes in this genus according to Eyles 2006). For us, no other deraeocorine genera known around the world could easily accommodate our Papuan specimens. The total length of some of them can be relatively small and inferior to 3 mm (contrarily to Carvalho & Costa 1997), even if it is unusual in the tribe. This is the case for the South and Central American genus *Lundiella* Carvalho, 1951, for our new genus *Missacoris* (cf. hereafter) and for *Baitetacoris*. However, the habitus of the three genera are relatively different. The exocorium (= embolium) of *Lundiella* is widened basally, the cuneus in this genus is strongly declivous and the dorsal pilosity is long and erect (Carvalho & Maldonado 1982). Moreover, the second antennal segment is never club-like in the males, but only in the females of *Lundiella*. *Baitetacoris* gen. nov. is easily separated of *Missacoris* n. gen by the structure of scutellum and hemelytra.

As pointed out by Cassis (1995) and Cassis & Eyes (2006), the tribal classification of Deaeocorinae is unsatisfactory, with the diagnosis of nominal tribes remaining insufficient. At present, no deraeocorine tribe other than Termatophylini could be established for sure as a monophyletic group (Cassis, op. cit.). The tribe Deraeocorini seems to be defined "chiefly on the basis of absent characters" and "basically a taxon that contains the genera that could not be placed within the more narrowly defined tribes" (Cassis 1995: 327). The relationships of the included genera remain to be clarified. Consequently, the relationships of *Baitetacoris* gen. nov. to the other deraeocorine genera are still totally unknown. On the base of external anatomy alone, *Baitetacoris* gen. nov. could be related to *Lundiella* Carvalho, 1951.

***Baitetacoris turschi* sp. nov.** (Figs 35-43, plate 9 figs 8-10)

Holotype ♂ ISNB: Papua New Guinea: Madang: "*Baitetacoris turschi* gen. nov., sp. nov. FC n° 5113. Det. F. Chérot, 2011" / "Holotype" / "Holotype *Baitetacoris turschi* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I. R. Sc. N. B., Canopy mission P. N. G., Madang Province, Baiteta, FOG AR43, 17.iv.1996, Leg. O. Missa" [the code FOG corresponds to fogging and the code AR43 to an unidentified host plant] (FC n° 5113).

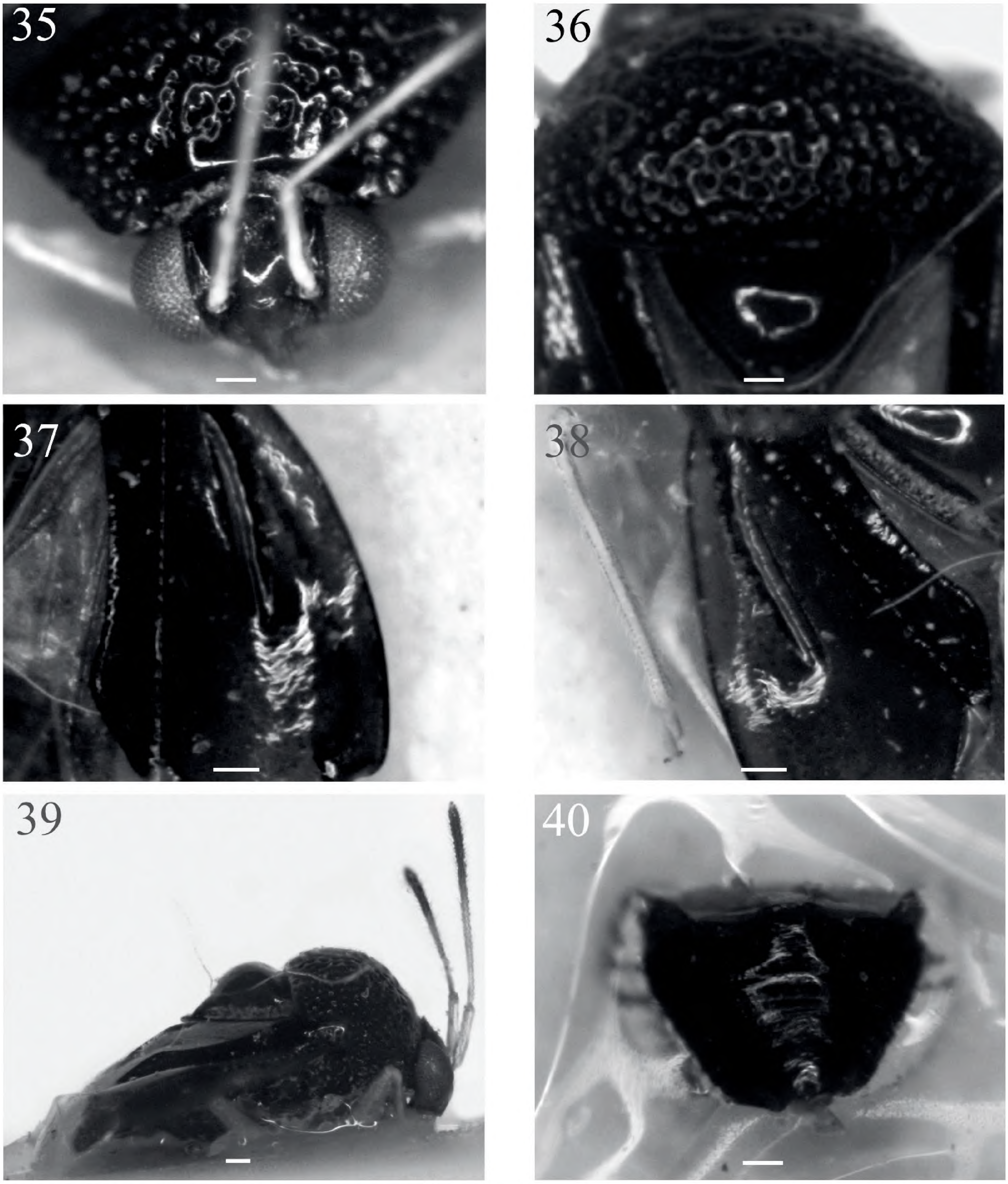
Paratypes 6 specimens ISNB: 1♂: Baiteta, 10.v.1995, O. Missa leg., *Chisocheton ceramicus* (Meliaceae), fogging (FC n° 5114); 4♂: Baiteta, 16.v.1995, O. Missa leg., *Celtis philippinensis* (Ulmaceae), fogging (FC n°s 5109-5112); 1♂: Baiteta, 06.vi.1995, O. Missa leg., *Celtis philippinensis* (Ulmaceae), fogging (FC n° 5115).

Derivatio nominis: The new species is dedicated to our esteemed colleague and friend Prof. Bernard Tursch (Free University of Brussels, Belgium), for his important contribution to classification of the genus *Oliva* (Mollusca) and in remembrance of the numerous stimulating discussions about taxonomy in his laboratory during the PhD of the first author.

Description: Small-sized rounded deraeocorine (Plate 9 fig. 8), total length (in dorsal view): 1.81 to 2.2, maximal width of hemelytra (slightly under apex of scutellum): 1.13 to 1.27. Head. Clypeus free, not covered by the frons in dorsal view, red-brown, with short, suberect, white setae. Maxillary and mandibular plates small, uncarinate, lacking tubercle, red brown to black, bearing relatively long, erect, white setae. Frons slightly rounded, not striate, bright red brown to black, almost glabrous (Fig. 35). Eyes large, glabrous, red-brown to grey, occupying majority of head height in lateral view. Total width of diatone: 0.61 to 0.67, width of vertex: 0.27 to 0.30. Vertex slightly carinate, narrow carina black. Middle of vertex unsulcate, bright red brown, almost glabrous, slightly striate. Antenna relatively short. First and second segments relatively thick, yellowish, second red-brown and club-like apically. Third and fourth segments narrower, yellow to brown. Pilosity of joints white, sub-erect, stiff, slightly longer than width of second segment. Lengths of the joints: I: 0.27 to 0.36, II: 0.91 to 1.02, III: 0.22 to 0.26 and IV: 0.20 to 032. Thorax. Pronotum (Fig. 36). Total length (collar included): 0.61 to 0.73, posterior width: 1.12 to 1.28. Collar relatively large (medial length: 0.03 to 0.05), dull, grey. Pronotal callosities apparently absent. Pronotal disk almost glabrous. Pronotal surface shining red brown to black with large and deep black punctation, punctation locally fused and forming a complex reticulated web. Anterior part of disk, along collar, shining black, lacking punctation. Posterior margin of disk concolorous. Lateral margins of disk each with black carina. Mesoscutum totally covered (Plate 9 fig. 8). Scutellum glabrous, smooth, swollen (Fig. 39), unicolourous red brown (Plate 9 fig. 9). Length: 0.49 to 0.55, basal width: 0.47 to 0.61. Lateral margins tomentose, grey (Fig. 36, plate 9 figs 9-10). Legs. Yellow. Metafemora with brown spinulae and with yellowish, relatively short spines. Segments of tarsi yellow-brown, claws brown. Hemelytra bright (Plate 9 fig. 8), almost smooth i.e. unpunctate and very slightly striate with short, erect, sparse, white setae. Clavus opaque, dark brown. Endocorium opaque, claval vein black. Exocorium rounded, explaned, red-brown, sometimes with long, curved,

black line rising apically (Fig. 37). Outer margins of exocorium red brown. Embolio-corial suture black with line of large black punctations. Cuneus brown, rounded and curved. Length of cuneus: 0.22 to 0.41, width of cuneus: 0.13 to 0.23. Membrane white, veins yellowish. Abdomen black, with long white setae (Fig. 40). Pygophore (Fig. 41).

Male genitalia: Left paramere (Fig. 42) wide, with large basis and secondary apophysis. Right paramere reduced (cf. Fig. 41, Rp), primary apophysis acute. Phallus or aedeagus (Fig. 43) with membranous lobe, sclerotised theca and basal sclerite. *Ductus seminis* and secondary gonopore minute.



Figures 35-40. *Baitetacoris turschi* gen. nov., sp. nov. 35– Head, frontal view (paratype FC n° 5109); 36 – Pronotal surface (paratype FC n° 5109); 37 – Right corium (paratype FC n° 5109); 38 – Left mesotibia and hemelytra (paratype FC n° 5109); 39 – Habitus, lateral view (paratype FC n° 5109); 40 – Pygophore (holotype FC n°5113) [scale bar 0.1 mm].

Sexual dimorphism: Female unknown.

Discussion: *Baitetacoris turschi* gen. nov., sp. nov. can easily be recognised by its habitus. From *Missacoris* gen. nov., *Baitetacoris* gen. nov. can be separated by its scutellum lacking three sub-basal tubercles but with tomentose wide lateral margins and by the structures of its hemelytra.

Hosts: *Baitetacoris turschi* gen. nov., sp. nov. was recorded by fogging, in four independent collection events, on two different host plants: *Chisocheton ceramicus* (Meliaceae) and *Celtis philippinensis* (Ulmaceae).

Fingulus **Distant, 1904b**

References: *Fingulus* Distant, 1904b: 275, as new genus; Stonedahl & Cassis 1991: 5-10, redescription, key of species; Schuh 1995: 626-627, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Fingulus atrocaeruleus* Distant, 1904b, by monotypy.

Fingulus novobritanicus **Stonedahl, Cassis, 1991**

(Plate 9 fig. 2)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 11.vi.1996, O. Missa leg., host unknown, light trap (FC n° 4143).

References: *Fingulus novobritanicus* Stonedahl, Cassis, 1991: 38-39 [5].

Discussion: *Fingulus novobritanicus* Stonedahl, Cassis, 1991 was described on four specimens of

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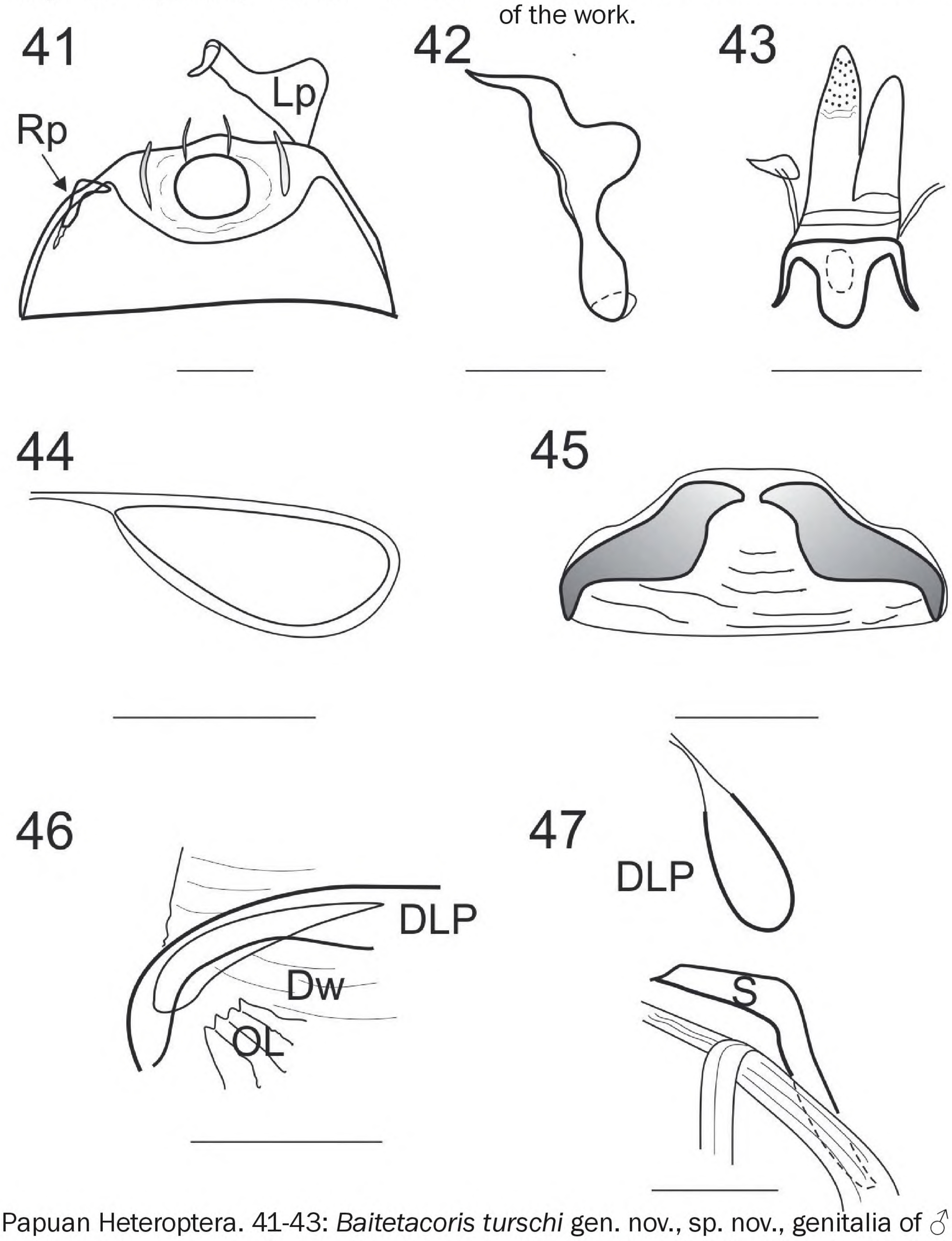
[5] This species was omitted by Schuh (1995) in his catalogue. It is not introduced yet in the online version of the work.



Figures 41-47. Papuan Heteroptera. 41-43: *Baitetacoris turschi* gen. nov., sp. nov., genitalia of ♂ paratype FC n° 5113. 41 – Pygophore, dorsal view; 42 – Left parameres; 43 – Phallus; 44-45: *Missacoris sigwaltae* gen. nov., sp. nov., genitalia of holotype ♀: 44 – Parieto-vaginal rings, dorsal view; 45 – Posterior wall; 46-47: *Garainamiris antennatus* Carvalho, 1981b, ♀ FC n° 4149: 46 – Parieto-vaginal rings, dorsal view; 47 – Right S Sclerite, dorsal view [scale bar 0.1 mm, except figs 41-42 scale bar 0.05 mm].

both sexes from Papua New Guinea, two from East New Britain, one from Madang and one from Milne Bay Provinces. The biology of this species is totally unknown. However, according to Stonedahl & Cassis (1991: 8), most species of the genus could be generalized predators with little or no host plant specificity and several species have been taken in light traps.

Fingulus sp.
Additional material ISNB: Papua New Guinea: Madang: 1♂: Baiteta, 08.vi.1995, O. Missa leg., *Hapholobus* sp. (Burseraceae), fogging (FC n° 4148); 1♀: Baiteta, 24.vii.1996, O. Missa leg., fogging (FC n° 4147).

Discussion: We were not able to identify these two small *Fingulus* specimens to species level.

***Missacoris* gen. nov.**
Type species: *Missacoris sigwaltae* gen. nov., sp. nov.

Derivatio nominis: The new genus is dedicated to our good colleague Olivier Missa (University of York, United Kingdom), who collected – in the framework of his PhD about Curculionidae biodiversity at ULB and ISNB – not only the specimens studied in the present work, but also a lot of other invertebrates, including numerous true bugs, in Baiteta Forest. Without Oliver's hard work, we would not have obtained such an interesting collection, with accurate data on host plants. Gender: masculine.
Description: Relatively small, rounded, almost glabrous and shining deraeocorine. Head shorter than pronotum, frons vertical, vertex carinate, unsulcate (Fig. 48). Pronotal collar wide, tomentose. Pronotal disk widely and deeply punctate (Figs 48, 50), lacking transverse sulcus, laterally carinate, callosities reduced. Claws strongly toothed at base, lacking pulvilli. Scutellum swollen, with three subbasal blunt tubercles (Plate 9 figs 4-7). Hemelytra opaque, shining, almost glabrous and unpunctate (Plate 9 fig. 7). Exocorium rounded, narrowed submedially on inner margin, opaque, ivory-white, with brown patche, red-brown outer margin and wide brown spoon-like to leaf-like stripe on submedial part of inner margin. Membrane glabrous.
Discussion: The head shorter than the pronotum, the vertical frons, the relatively long antenna, the wide, tomentose pronotal collar, the wide and deep punctation of pronotal disk, the pronotal disk lacking a proeminent, shining, transverse sulcus around the callosities, the reduced callosities, the claws strongly toothed at base but lacking pulvilli and with setiform parempodia (i.e. unmodified in fleshy, flattened pads, convergent or divergent apically), the opaque hemelytra and the membrane glabrous all led us to include the taxon in the tribe Deraeocorini of the subfamily Deraeocorinae. *Missacoris* can hardly be confused with other genera of Papuan Deraeocorini. When we use Carvalho's (1985: 448) key of Deraocorinae from Papua New Guinea (in fact a key of Deraeocorini, the Saturniomirini being excluded as the paper only concerns one tribe according to its title), we are not able to go beyond point number 1: our specimen is small (2.9 mm) in contrast to *Morobemiris giluwensis* Carvalho, 1985, the sole species included in the genus *Morobemiris* Carvalho, 1985. However, the scutellum of our specimen is strongly proeminent (as *Morobemiris* and contrarily to the other genera cited in the key), but raised subbasally in three blunt tubercles (in not subapically in one tubercle). The genera *Angerianus* Distant, 1904c, *Araspus* Distant, 1904a and *Garainamiris* Carvalho, 1981b, all known from Papua New Guinea and classified in Deraeocorini until now, were omitted by Carvalho (1985). Fortunately, they were reviewed recently (Carvalho 1981b, 1984a; Stonedahl 1991) and several illustrations of the habitus of some included species were provided in the literature. We can exclude our specimen from these genera: their species are more elongate, with different scutellum, embolium, antenna, dorsal pilosity etc. A comparison with other deraeocorine genera on a World-scale is more difficult, because the available key (Carvalho 1955) is totally outdated. As already pointed out, the Australian deraeocorine fauna is relatively poor, including only five genera: *Deraeocoris*, *Eurybrochis*, *Fingulus*, *Pseudocamptobrochis* and *Termatomiris* (Cassis & Gross 1995). The membership of our Papuan specimen to these genera can be excluded by the habitus, particularly by the pronotal shape, dorsal punctation and dorsal pilosity. The membership to the Oriental or east Palaearctic genera *Cimidaeorus*, *Dortus*, *Lamprocarnum* and *Paranix* can also be excluded by the habitus of these taxa, particularly by the hemelytral punctation. Three of the four genera of Deraeocorini of New Zealand – *Poecilomiris*, *Reuda* and *Romna* – have lateral carinae on pronotum, as *Missacoris* gen. nov. However, *Poecilomiris* and *Romna* differ by the habitus (mainly their elongate shape, larger size and wide hemelytral punctation), *Reuda* by the head structure (the oblique frons

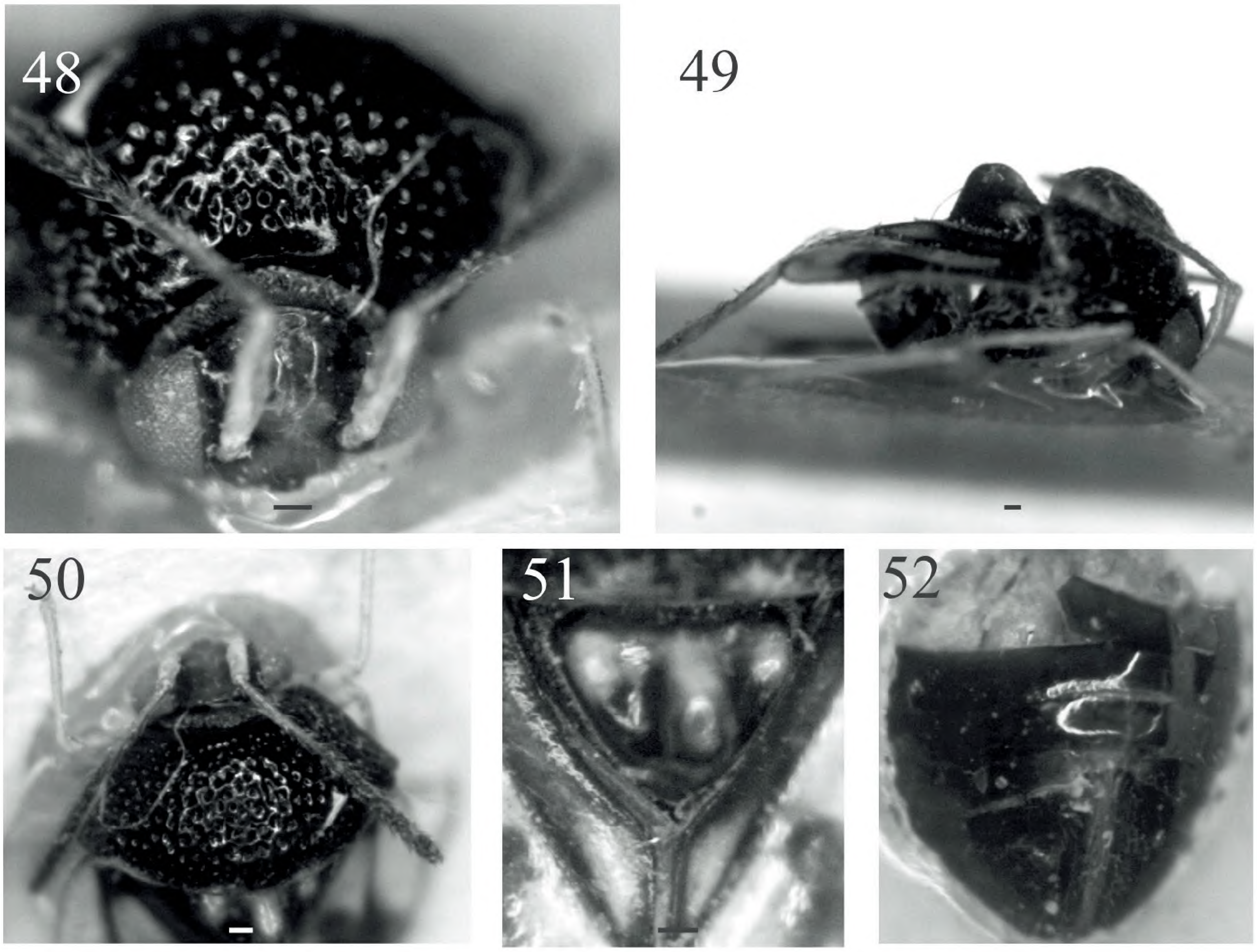
and vertex are below top of the eyes in this genus according to Eyles 2006). We were not able to find any similar deraeocorine genus to *Missacoris* gen. nov. elsewhere in the world. Consequently, we feel free to describe our specimen as a new genus. The relationships of *Missacoris* gen. nov. to other Deareacorini are totally unknown, a phylogenetic analysis of the tribe on a world-scale is still lacking.

***Missacoris sigwaltae* sp. nov.** (Figs 44-45, 48-52, plate 9 figs 4-7)

Holotype ♀ ISNB: Papua New Guinea: Madang: "*Missacoris sigwaltae* gen. nov., sp. nov. FC n° 4174. Det. F. Chérot, 2011" / "Holotype" / "Holotype *Missacoris sigwaltae* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I. R. Sc. N. B., Canopy Mission P. N. G., Madang Province, Baiteta, FOG AR 50, 25.vii.1996, Leg. O. Missa" [the code FOG corresponds to fogging and the code AR50 to an unidentified host plant] (FC n° 4174).

Derivatio nominis: The new species is dedicated to our esteemed colleague Dr. D. Pluot-Sigwalt (Museum National d'Histoire naturelle, Paris, France), for her invaluable contribution to the study of the morphology and anatomy of several poorly known Heteroptera, particularly in the families Anthocoridae, Cydnidae, Lygaeidae s. l., Miridae, Pyrrhocoridae and Reduviidae and for the kind help she always provided to the first author during his stays at Paris' Museum.

Description: Relatively small-sized rounded Deraeocorine (Plate 9 fig. 4) - total length (in lateral view): 2.94, maximal width of hemelytra (at level of apex of scutellum): 1.69 - with a swollen tuberculate scutellum (Fig. 49, plate 9 fig. 5). Head. Clypeus free but almost not visible in dorsal view, black, apparently glabrous. Maxillary and mandibular plates small, partially glued, apparently uncarinate, lacking tubercle, orange brown. Frons slightly rounded, not striate, shining orange brown with red brown to black stripes along eyes and sparse, short, recumbent or suberect, white setae, without sericeous or woolly setae (Fig. 48). Eyes large, glabrous, pinkish, occupying majority of head height in lateral view. Total width of diatone: 0.70,



Figures 48-52. *Missacoris sigwaltae* gen. nov., sp. nov., holotype ♀. 48 – Head, lateral view; 49 – Pronotum and scutellum, lateral view; 50 – Pronotal surface; 51 – Scutellum, dorsal view; 52 – Abdomen, ventral view [scale bar 0.1 mm].

width of vertex: 0.32. Vertex carinate, unsulcate medially, shiny red brown, almost glabrous. Antenna elongate. First segment thick, yellowish. Second, third and fourth segments narrower, second slightly club-like, yellow to orange with a lateral red brown stripe basally, red brown to black apically, third and fourth yellow. Pilosity white, sub-erect, stiff, shorter than width of first segment but obviously longer than width of following segments. Lengths of joints: I: about 0.43, II: 1.53, III: about 0.44 and IV: about 0.25 (measurements are made on left antenna, two last segments of right antenna being lacking; unfortunately segments of left antenna are not perfectly straight). Thorax. Pronotum (Fig. 50). Total length (collar included): 0.79, posterior width: 1.26. Collar relatively large (medial length: 0.15), dull, grey, with numerous small black callosities. Pronotal callosities apparently absent. Pronotal disk almost glabrous. Pronotal surface shining red brown to black with large and deep black punctation, punctation locally fused and forming complex reticulated web. Anterior part of disk, along collar, shining black, lacking punctation. Posterior margin of disk yellow to whitish. Lateral margins of disk each with black carina. Mesoscutum totally covered in middle, laterally black (Plate 9 fig. 6). Scutellum glabrous, swollen, red brown, with two lateral and a medial ivory-white tubercles (Plate 9 figs 6-7). Length: 0.55, basal width: 0.75. Legs. Yellow. Metafemora with sub-erect, yellowish setae, black spinulae and white to yellowish spines. Segments of tarsi yellow, claws brown. Hemelytra glabrous, shiny, almost smooth i.e. unpunctate and very slightly striate (Plate 9 fig. 4). Clavus opaque, basally dark brown, medially brown, apically ivory-white, margins darker, red-brown. Endocorium opaque, ivory-white, with large subapical brown patches. Exocorium rounded, narrowed submedially on inner margin, opaque, ivory-white, with brown patch, red-brown outer margin and wide brown spoon-like to leaf-like stripe on submedial part of inner margin. Cuneus yellowish, inner margin with an apical brown stripe. Length of cuneus: 0.32, width of cuneus: 0.25. Membrane brown medially, yellowish laterally, veins brown. Abdomen: black, with long white setae.

Female genitalia: Parieto-vaginal rings thin, hardly visible (Fig. 44). Posterior wall (Fig. 45) membranous, with a pair of sigmoid lateral sclerites. Male unknown.

Discussion: *Missacoris sigwaltae* gen. nov., sp. nov. can easily be recognised by its habitus. No Papuan Dereaocorine is similar to this strange animal.

Hosts: unknown.

Papuacoris Carvalho, 1985

References: *Papuacoris* Carvalho, 1985: 465-466, as new genus; Schuh 1995: 630, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Deraeocoris colocasiae* (Poppius, 1915a), by original designation.

Papuacoris vittatus (Reuter, 1908) (Plate 9 fig. 3)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Branman Miss., 05.v.1988, Station 16, leg. J. VanStalle (FC n° 5116).

References: *Camptobrochis vittatus* Reuter, 1908: 188, as new species; *Papuacoris vittatus*: Carvalho 1985: 470, redescription, comb. nov., DV, MG; Schuh 1995: 630, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Papuacoris vittatus* (Reuter, 1908) was described on the female lectotype from Java alone. Carvalho (1985: 470) cites some additional specimens from Papua Barat and Papua New Guinea.

Hosts: unknown.

Note: This species was not recorded from Baiteta Forest.

Saturniomirini Carvalho, 1952

Garainamiris Carvalho, 1981b new tribal assignment

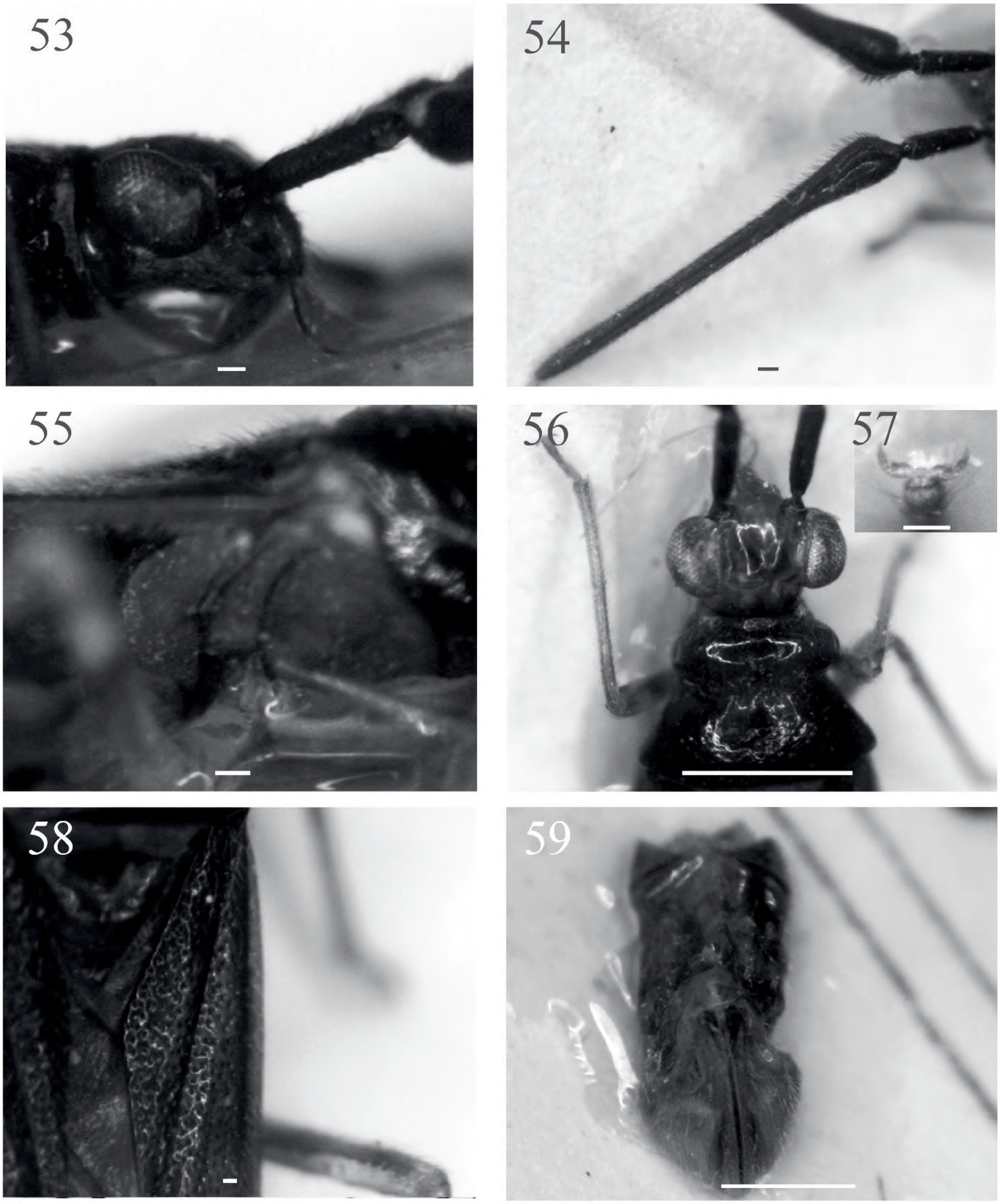
References: *Garainamiris* Carvalho, 1981b: 479, as new genus; Schuh 1995: 627, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Garainamiris antennatus* Carvalho, 1981b, by original designation and monotypy.

Garainamiris antennatus Carvalho, 1981b (Figs 46-47, 53-59, plate 10 figs 1-2)

Additional material ISNB: Papua New Guinea: Madang: 6♂, 2♀: Baiteta, 05.v.1995, O. Missa leg., on *Tristiropsis acutangula* (Sapindaceae), fogging (FC n°s 4150-4156, 4159); 1♀: idem, 11.v.1995, O. Missa leg., host unknown, fogging (FC n° 4149); 1♂: idem, 17.vii.1995, O. Missa leg., on *Chisocheton welandia* (Meliaceae), fogging (FC n° 4160); 2♂: idem, 20.vii.1995, O. Missa leg., on *Celtis latifolia* (Ulmaceae), fogging (FC n°s 4157-4158).

Other taxa examined for comparison (Plate 10 figs 3-12): *Cheesmaniella clavonigra* Carvalho, 1984b. Indonesia: Papua Barat: paratype 1♂ MNRJ: Swart Valley, Karubaka, 21.xi.1958 (FC n° 4212). *Cheesmaniella fasciata* Carvalho, 1984b. Indonesia: Papua Barat: paratype 1♀ MNRJ: Nete (= Netherlands), Vogelkop, Boden (ou Bodem), 11km south-east of Oberfaren, 07-17.vii.1959, Maa T. C. leg. (FC n° 4211). *Cheesmaniella nigra* Carvalho, 1984b. Indonesia: Papua Barat: paratype 1♀ MNRJ: Nete (= Netherlands) Vogelkop, 11km south-east of Oberfaren, 08.vi.1959, Gressitt J. L. leg. (FC n° 4210). *Cheesmaniella notomaculata* Carvalho, 1984b. Indonesia: Papua Barat: Cendrawasih Peninsula: paratype 1♀ MNRJ: Kebar Valley, west of Manokwari, 04-31.i.1962, Quate L. W. leg. (FC n° 4209). *Imogen formosa* Kirkaldy, 1905. Papua New Guinea: New Britain: 1♀ MNRJ: Gazelle Pen., upper Warengui, Araburn, 28.xi.1962, Sedlacek J. leg. (FC n° 4206). Other *Imogen*



Figures 53-59. *Garainamiris antennatus* Carvalho, 1981b. 53 – Head, lateral view (FC n° 4154); 54 – Second antennal segment (FC n° 4154); 55 – Thorax, lateral view (FC n° 4158); 56 – Head and pronotal surface, dorsal view (FC n° 4154); 57 – Pretarsus and claw (FC n° 4154); 58 – Right clavus and corium (FC n° 4154); 59 – Abdomen, ventral view (female FC n° 4149) [scale bar 0.1 mm, except fig. 56 scale bar 1 mm].

species: cf. paragraphs about *I. bicolor* (Poppius, 1912), *I. fasciatus* Carvalho, 1983 and *I. papuensis* Carvalho, 1983 hereafter. *Saturniomiris lugens* (Walker, 1873b). Papua New Guinea: 1? BMNH syntype of *Capsus tristis* Walker, 1873): "[locality unknown] Saunders W. W. leg."; Western Province: 1? MNRJ: Kiunga (?), viii.1969, Sedlacek J. & M. leg.(FC n° 4208). *Synthlipsis annulipes* Carvalho, 1953. Australia: Queensland: 1? paratype MNRJ: Kuranda, vi.1904, Dodd F. P. leg. (FC n° 4213). *Synthlipsis ternatensis* (Distant, 1904). Indonesia: Ternate Island: syntype 1? BMNH: J. J. Walker leg. (FC n° 5353). *Trilaccus nigroruber* Horvàth, 1902. Australia: New South Wales: syntype 1♂ MNRJ: Richmond R. leg. (FC n° 5061) (HNHM); 1?: Norton's Bassin, Penrith, 13.vi.1918, Musgrave A. leg. (FC n°4214).

References: *Garainamiris antennatus* Carvalho, 1981b: 479, as new species; Schuh 1995: 627, catalogue; Schuh 2002-2013, online catalogue.

Addition to the original description: The genitalia of the female were still unknown. We take advantage of the numerous available specimens from Baiteta Forest to describe them. Parieto-vaginal rings (Fig. 46) elongate, anterior margin convex, posterior margin almost straight, latero-outer and latero-inner margins short, first convex, latter acute. In dorsal view, rings partially hidden by membranous dorsal wall (Dw) and lateral oviducts (LO). Dorsal labiates plate and seminal depository membranous. A sclerite S (Fig. 47) arises from the first (or eighth) valvifers (or gonocoxites). Posterior wall membranous.

Discussion: Carvalho (1981b: 479) described his new genus *Garainamiris* to accommodate his new species *G. antennatus* Carvalho, 1981 from Garaina, Papua New Guinea (Morobe Province), on the basis of the male holotype alone. The specimens from Baiteta Forest perfectly fit Carvalho's original description and drawings (Carvalho op. cit., p. 480, Figs 1-5). In his description, Carvalho (op. cit.: 479) points out the amazing shape of (male) second antennal segment, describing it as "characteristic, incrassate at base", but omitting to mention some other important character states of this segment. Strictly speaking, the second antennal segment is not "incrassate at base" but incrassate sub-basally, after a short cylindrical base. It is also sulcate almost on its entire length, from its swollen anterior part to its apex, the sulcus is curved, wide, relatively deep basally, straight, narrower and shallower medially and apically. The sulcate side of second antennal segment is flat in comparison of the convex other sides of the same segment. Both last antennal segments are classical, i.e. subcylindrical, yellow-brown, and narrower than the second to its apex. The female is very similar to the male, but lighter particularly on the head, the pronotum and the hemelytra, with a second antennal segment subcylindrical, slightly thickened apically.

Amazingly, Carvalho (1981b: 479) originally classified his new genus in the tribe Deraeocorini and not in his tribe Saturniomirini Carvalho, 1952. Nevertheless, he compared *Garainamiris* only to *Synthlipsis* Kirkaldy, 1908b, a Saturniomirini, and *Garainamiris* possesses all character states cited by Carvalho (1952; 1955) and by Carvalho & Costa (1997) for the tribe Saturniomirini, i.e. the anterior part of pronotum strongly narrowed behind the callosities, the callosities large, wide, medially fused, covering the lateral margins of the pronotum, the eyes styled or substyled and the second cell of the membrane absent or very reduced. Moreover, *Garainamiris antennatus*, as *Imogen* Kirkaldy, 1905 – also a Saturniomirini – and *Synthlipsis* Kirkaldy, 1908b, has the pronotal callosities laterally prolonged in an ocellate or button-like structure.

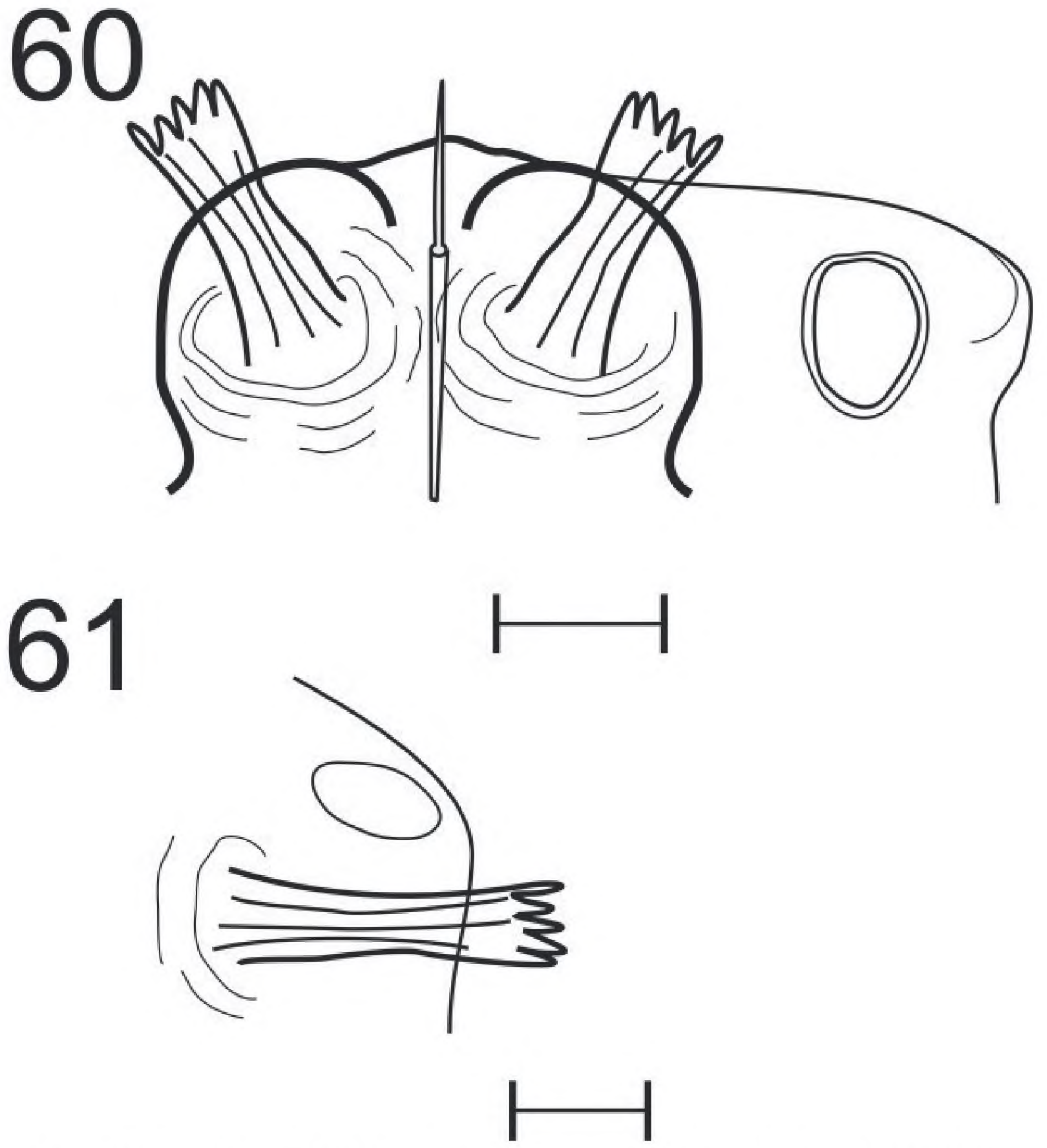
Even if the tribal subdivisions of the subfamily Deraeocorinae are unsatisfactory (Cassis 1995; Cassis & Eyles 2006), if the tribal rank given to the Saturniomirini is impossible to confirm given the lack of a phylogeny of the subfamily and if the validity of several genera classified in Saturniomirini should be analysed (see Carvalho 1986b), the Saturniomirini seem to constitute a natural group of genera in the Deraeocorinae.

We consequently transfer *Garainamiris* Carvalho, 1981 from the Deraeocorini to Saturniomirini Carvalho, 1952 (new tribal assignment).

With the new assignment, the tribe Saturniomirini includes the 6 following genera:

Cheesmaniella Carvalho, 1984b
Garainamiris Carvalho, 1981
Imogen Kirkaldy, 1905
Saturniomiris Kirkaldy, 1902a
Synthlipsis Kirkaldy, 1908b
Trilaccus Horvàth, 1902

Garainamiris Carvalho, 1981 is easily separated from *Cheesmaniella* Carvalho, 1984b and from *Saturniomiris* Kirkaldy, 1902a by the pronotal punctation. The pronotal punctation of *Saturniomiris lugens* is very dense, relatively narrow and deep, the pronotal punctation of the four *Cheesmaniella*'s species is sparser, wider and also relatively deep whereas the pronotal punctation of *Garainamiris antennatus* is sparse, wide and shallow, the pronotum seeming almost



Figures 60-61. *Imogen fasciatus* Carvalho, 1983 and *I. papuensis* Carvalho, 1983, female genitalia. Parieto-vaginal rings of *I. fasciatus* (Fig. 60) and *I. papuensis* (Fig. 61) respectively [scale bar 0.1 mm].

unpunctate in dorsal view at low magnification. *Garainamiris antennatus* can be also easily separated from the Papuan *Imogen* Kirkaldy, 1905 by its elongate body shape (the *Imogen* species are rounded, their exocoria being convex). The genus is more similar to *Synthlipsis* Kirkaldy, 1908b and *Trilaccus* Horvàth, 1902 by the habitus. However, the dorsal punctation of *Trilaccus* Horvàth, 1902, particularly its hemelytral punctation, seems more reduced. Finally, *Garainamiris* is the sole genus of Saturniomirini with such extraordinary sexual dimorphism of second antennal segment.

Hosts: In Baiteta Forest, *Garainamiris antennatus* Carvalho, 1981b was recorded by fogging, in four independent collection events, on three different identified host plants: *Celtis latifolia* (Ulmaceae), *Chisocheton welandia* (Meliaceae) and *Tristiropsis acutangula* (Sapindaceae). Apparently, the species was not cited in the literature since its description and its biology was totally unknown.

Imogen Kirkaldy, 1905

References: *Imogen* Kirkaldy, 1905: 337, as new genus; Schuh 1995: 648, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Imogen formosa* Kirkaldy, 1905 by monotypy.

Imogen bicolor (Poppius, 1912b) (Plate 10 fig. 7)

Additional material: Papua New Guinea: Madang: 1♂ ISNB: Baiteta, 02.viii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 4146); Wau: 1? MNRJ: Wau, 30.vi.1965, Sedlacek J. leg. (FC n°4205) (compared with the type by J.C.M. Carvalho).

References: *Araspus bicolor* Poppius, 1912b: 227, as new species. *Imogen bicolor*: Akingbohungbe 1978: 89, redescription, new combination; Carvalho 1983: 401-402, redescription, new combination, DV, MG; Schuh 1995: 648, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Imogen bicolor* (Poppius, 1912b) was described on a small series of male specimens from Ighibirei, Central Province, Papua New Guinea. Carvalho (1983: 402) cites additional specimens from Papua Barat, Indonesia and from Papua New Guinea.

Hosts: In Baiteta Forest, *Imogen bicolor* (Poppius, 1912b) was recorded only one time, by fogging, on *Dysoxylum patigravianum* (Meliaceae).

Imogen fasciatus Carvalho, 1983 (Fig. 60, plate 10 fig. 8)

Holotype ♀ USNM: Papua New Guinea: Morobe: “Finschhafen, 04.v.1944, Ross E. S.” (FC n° 5250).

Paratype ♀ MNRJ: Central Province: Owen Stanley Range, Golalai, Tapini, 16-25.xi.1957, Brandt W. W. leg. (FC n°4207).

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 1995, O. Missa leg., host and collecting method unknown (FC n° 4144).

References: *Imogen fasciatus* Carvalho, 1983: 402-403, as new species, DV; Schuh 1995: 648, catalogue; Schuh 2002-2013, online catalogue.

Addition to the original description: The genitalia of both sexes were unknown still, the male sex remaining totally unknown. We take advantage of the available specimens to provide hereafter a first description of the female genitalia: Parieto-vaginal rings (Fig. 60) large, anterior margin straight, posterior, latero-outer and latero-inner margins convex. Dorsal wall membranous, partially hidden rings in dorsal view, lateral oviducts wide, and "worm-like" or spermathecal gland elongate. Seminal depository and posterior wall membranous.

Discussion: *Imogen fasciatus* Carvalho, 1983 was described on five female specimens, the holotype from Finschafen (Morobe, Papua New Guinea) and four paratypes, three from Papua New Guinea (Central Province, Eastern Highlands and Wau respectively) and one from Papua Barat. Its biology – including host plant – is totally unknown.

Imogen papuensis **Carvalho, 1983** (Fig. 61, plate 10 fig. 10)

Holotype ♀ USNM: Papua New Guinea: Northern: "M(oun)t Lamington Province, C. T. McNamara coll." (FC n° 5221).

Paratype ♀ MNRJ: Kokoda Pitoki, 24.iii.1956, Gressitt J. L. leg. (FC n°4204).

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 05.v.1995, O. Missa leg., on *Tristiropsis acutangula* (Sapindaceae), fogging (FC n° 4145).

References: *Imogen papuensis* Carvalho, 1983: 403-404 (as new species, DV); Schuh 1995: 648, catalogue; Schuh 2002-2013, online catalogue.

Addition to the original description: The genitalia of both sexes were unknown still. We take advantage of the available specimens to provide hereafter a first description of the female genitalia: Parieto-vaginal rings (Fig. 61) reduced, obviously separated, elongate, with margins slightly convex. Dorsal wall and posterior wall membranous, lateral oviducts wide.

Discussion: *Imogen papuensis* Carvalho, 1983 was described on nine specimens of both sexes, the female holotype from Mt. Lamington (northern Papua New Guinea) and eight paratypes, seven from Papua New Guinea (Morobe, Northern and Wau respectively) and one from Papua Barat. Its biology was totally unknown. In Baiteta Forest, *I. papuensis* was recorded only one time by fogging from *Tristiropsis acutangula* (Sapindaceae).

Mirinae Hahn, 1833
Hyalopeplini Carvalho, 1952

In his unpublished PhD thesis, Chérot (2002) suggested the name of family group and of tribal rank Hyalopeplini Carvalho, 1952 could be treated as junior subjective synonym of the name Mirini Hahn, 1833 [6]. The genera and species classically included in the nominal tribe Hyalopeplini are apparently devoid of diagnostic and potentially synapomorphic character state. In other words, they lack common character states absent in other Mirinae. As a consequence of this absence, they were included in a large group of Mirinae genera (the Mirini sensu lato i.e. Mirini + Hyalopeplini sensu auct.) and do not constitute a monophyletic group in it. Alone the set Mirini + Hyalopeplini sensu auct is monophyletic in preliminary cladistic analyses. Because a new classification of the Mirinae genera was not yet published (Chérot – op. cit. – including a disclaiming of nomenclatural purpose of all nomenclatural acts he suggested, according to Article 8.3 of the International Code of Zoological Nomenclature, Fourth edition) and because this issue is beyond the scope of this paper, we adopt here the classical tribal classification of subfamily, even if it is now challenged.

Guisardinus **Carvalho in Carvalho et Gross, 1979**

References: *Guisardinus* Carvalho in Carvalho et Gross, 1979: 441-443, as new genus: description, key, new species; Schuh 1995: 676, catalogue; Schwartz & Chérot 2005: 7-8, discussion; Schuh 2002-2013, online catalogue.

Type species: *Guisardinus neoguineanus* Carvalho in Carvalho et Gross, 1979, by original designation.

Guisardinus neoguineanus **Carvalho in Carvalho et Gross, 1979** (Figs 62-68, plate 11 fig. 1)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 26.v.1995, O. Missa leg., on *Terminalia sepikana* or *Piteleocarpus indicum* (Combretaceae and Fabaceae respectively), fogging (FC n° 3853).

Other taxa examined for comparison: *Guisardinus lineatus* Carvalho in Carvalho & Gross, 1979: China: paratype ♀ BMNH: "BMNH" / "*Guisardinus lineatus* sp. nov." / "Paratipo" / "British Museum 1964-26" (verso) / "*L. Gressitt* coll." / "Ta Han, Hainan I(slan)d, 06.vii.1933" (FC n° 977); 1♀ CFC: Thailand: Bangkok,

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[6] Chérot's (2002) PhD conclusions about Hyalopeplini were summarised in Chérot (2013).

10.v.1974, leg. E. Heiss (FC n° 1089).

References: *Guisardinus neoguineanus* Carvalho in Carvalho et Gross, 1979: 442, as new species; Schuh 1995: 676, catalogue; Schuh 2002-2013, online catalogue.

Redescription: Body elongate, wide, total length: 6.3, maximal width of hemelytra (after middle of hemelytra): 2.51, yellow-brown with red-brown stripes, hemelytra glossy, yellow-brown. Head. Clypeus partially covered by frons in dorsal view, yellow brown, with short and erect setae. Maxillary and mandibular plates uncarinate, lacking tubercle, yellow brown, mandibular plates elongate and narrow (Fig. 62). Frons slightly rounded, laterally striate, yellow-brown to green-grayish, with very short, recumbent or suberect, white setae, without sericeous or woolly setae. Eyes glabrous, substylate, silvery, occupying about 50 percent of height of head in lateral view. Total width of diatone: 1.30, width of vertex: 0.55. Vertex uncarinate, slightly sulcate medially. Antenna elongate. First segment yellow-brown, widened and club-shaped subbasally, narrowed medially. Second, third and fourth segments narrower, second red-brown, third and fourth almost black. Lengths of joints: 0.87, 1.90, 1.42, 0.40. Labium yellow, short, extending slightly beyond mesocoxa; apex black. Thorax. Pronotum (Fig. 64). Total length (collar included): 1.54, posterior width: 2.1. Collar large (medial length: 0.33), obviously striate, orange brown, with a medial red-brown to black stripe. Callosities rounded, yellow brown, separated medially and from the lateral margins of disk. Pronotal disk almost glabrous, setae very short, suberect. Pronotal surface yellow brown with pair of dark brown to black spots on posterior margin, a very narrow medial red-brown stripe and two red-brown to dark-brown spots on swollen humeral angles. Punctation wide and deep. Metastethium (Fig. 63). Mesoscutum totally covered. Scutellum (Figs 64, 67). Length: 0.83, basal width: 0.95. Yellow, pilosity white, suberect, punctation wide and deep, except apex smooth, the lateral margins crenulate. Legs (Fig. 65). Femora yellow-brown, with red-brown patches and brownish, elongate, suberect setae. Metafemora with suberect, yellowish setae, two rows of black spinulae and white to yellowish spines. First segment of tarsi yellow, second and third segments darker, second red-brown, third almost black apically. Claws (Fig. 66). Hemelytra (Fig. 67). Clavus basally opaque, apically slightly translucent, inner margin black, surface orange to yellow-brown, with numerous shallow and narrow punctation and row of deep and wide punctures along clavo-corial suture. Claval vein yellow. Pilosity erect, white, without sericeous or woolly setae. Corium translucent to glassy, orange to yellow-brown, the corial vein brown, inner margin red-brown to black. A row of deep and relatively wide red-brown punctures in middle of exocorium, surface of corium with numerous very small, narrow and shallow punctation. Cuneus translucent, orange to yellow-brown, apex with brown patch. Length of cuneus: 0.86, width of cuneus: 0.39. Membrane glassy, yellowish, veins yellow to brown. Abdomen (Fig. 68): yellowish to gray-green, with long white setae.

Discussion: *Guisardinus neoguineanus* Carvalho in Carvalho & Gross, 1979 was known only by the female holotype from Elipatim Valley, Northern Province, Papua New Guinea. Our specimen perfectly fits with Carvalho's brief description. The bug is *Guisardus*-like, with a pair of substyled eyes, a striate pronotal collar, a strongly punctate pronotum, the punctation wide and deep, a pair of globose humeral angles and a punctate scutellum. Consequently, it can effectively be classified in the genus *Guisardinus* Carvalho in Carvalho & Gross, 1979. The colouration – particularly the infuscated base of clavus and the dark spots of pronotum –, mensurations[7] and body shape - with the hemelytra slightly widened posteriorly – fit well the species *G. neoguineanus*. We take advantage of our additional specimens to provide hereabove a redescription of this still poorly known species. *Guisardinus neoguineanus* Carvalho in Carvalho & Gross, 1979 can easily be separated from *G. lineatus* (Carvalho in Carvalho & Gross, 1979), the other *Guisardinus* species present in New Guinea (the holotype of *G. lineatus* was found in Papua Barat, Muffin Bay). The hemelytra are widened posteriorly and lack a transverse fascia on the corium at level of clavus apex in *G. neoguineanus*; the lateral margins of hemelytra are almost straight and the transverse fasciae obvious in *G. lineatus*.

Hosts: In Baiteta Forest, *G. neoguineanus* was recorded only once, by fogging, on *Terminalia sepikana* (Combretaceae) or *Piteleocarpus indicum* (Fabaceae).

***Guisardus* Distant, 1904c**

References: *Guisardus* Distant, 1904c: 436, as new genus; Carvalho & Gross 1979: 444-451, redescription, key, new species; Schuh 1995: 676, catalogue; Kerzhner & Josifov 1999: 203,

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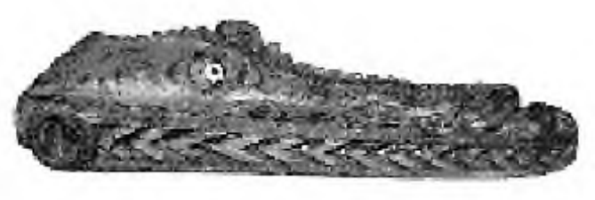
[7] The cuneus length (0.08 mm) given by Carvalho & Gross (1979: 442) is obviously wrong.

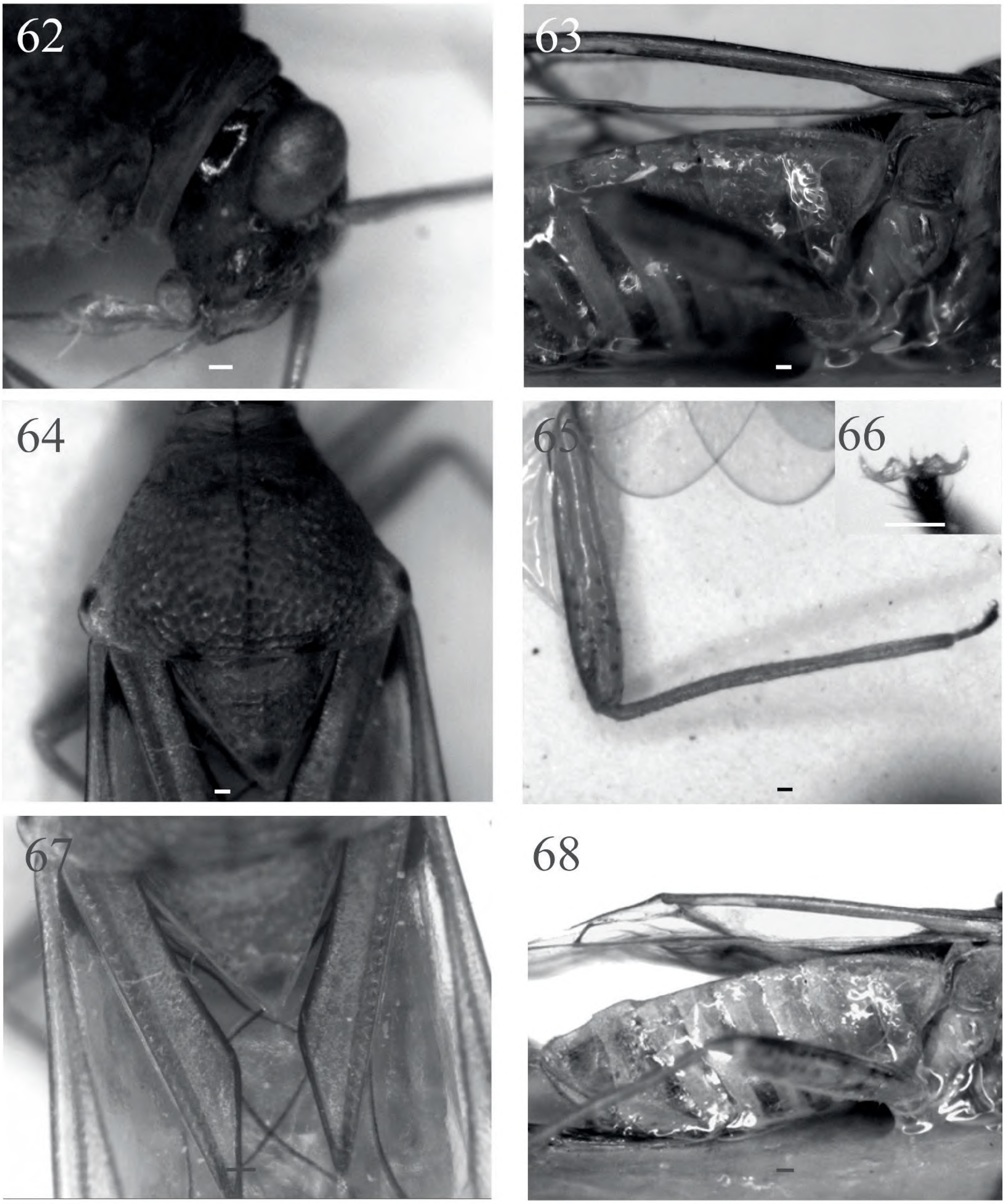


catalogue; Schuh 2002-2013, online catalogue.

Type species: *Guisardus pellucidus* Distant, 1904c, by monotypy.

Guisardus strigicollis **Poppius, 1912a** (Plate 11 fig. 2, plate 12 figs 1-6)

Additional material ISNB: Papua New Guinea: Madang: 1♂: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light (FC n° 3980); 1♂: *idem*, 12.v.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), fogging (FC n° 1344); 2♂, 1♀: *idem*, 20.v.1993, O. Missa leg., on *Pomatia pinnata*



Figures 62-68. *Guisardinus neoguineanus* Carvalho in Carvalho et Gross, 1979 (FC n° 3853). 62 – Head, lateral view; 63 – Metapleura; 64 – Pronotal surface; 65 – Hind leg; 66 – Pretarsus and claw; 67 – Clavus; 68 – Abdomen, lateral view [scale bar 0.1 mm].

(Sapindaceae), fogging (FC n°s 3974-3976); 6♀: *idem*, 22.vi.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), fogging (FC n°s 1338-1343, 3835); 4♂, 2♀: *idem*, 05.v.1995, O. Missa leg., on *Tristiropsis acutangula* (Sapindaceae), fogging (FC n°s 3874-3879); 6♂, 6♀: *idem*, 11.v.1995, O. Missa leg., on ?, fogging (FC n°s 3960-3971); 1♂: *idem*, 24.v.1995, O. Missa leg., on *Buchanania heterophylla* (Anacardiaceae) or *Hernandia ovigera* (Hernandiaceae) or *Vitex cofassus* (Verbanaceae), fogging (FC n° 3982); 10♂, 8♀: *idem*, 06.vi.1995, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n°s 3914-3931); 1♀: *idem*, 06.vi.1995, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), fogging (FC n° 3886); 1?: *idem*, 30.vi.1995, O. Missa leg., on *Ficus* sp.(Moraceae), fogging (FC n°3984); 1♂, 1♀: *idem*, 08.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n°s 3935-3936); 2♂, 2♀: *idem*, 09.iv.1996, O. Missa leg., on *Dysoxylum arnoldianum* or *Homalium foetidum* (Meliaceae and Flacourtiaceae), light trap (FC n°s 3880-3883); 2♂, 1♀: *idem*, 12.iv.1996, O. Missa leg., on ?, fogging (FC n°s 3951, 3972-3973); 1♂: *idem*, 17.iv.1996, O. Missa leg., on ?, fogging (FC n°s 3979); 1♂: *idem*, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), fogging (FC n°s 3934a); 1♂, 2♀: *idem*, ?.iv.1996, O. Missa leg., on ?, light trap (FC n°s 3937-3939); 1♂: *idem*, 1.v.1996, O. Missa leg., on ?, fogging (FC n°s 3983); 6♂, 6♀: *idem*, 27.v.1996, O. Missa leg., on ?, fogging (FC n°s 3948-3950, 3952-3959, 3977); 1♂ & 1♀: *idem*, 03.vi.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap (FC n°s 3932-3933); 1♀: *idem*, 04.vi.1996, O. Missa leg., on *Buchanania heterophylla* (Anacardiaceae) or *Hernandia ovigera* (Hernandiaceae) or *Vitex cofassus* (Verbanaceae), light trap (FC n° 3873); 1♀: *idem*, 05.vi.1996, O. Missa leg., on *Buchanania heterophylla* (Anacardiaceae) or *Hernandia ovigera* (Hernandiaceae) or *Vitex cofassus* (Verbanaceae), light trap (FC n° 3872); 2♀: *idem*, 05.vi.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap (FC n°s 3940-3941); 3♂, 2♀: *idem*, 10.vi.1996, O. Missa leg., on *Buchanania heterophylla* (Anacardiaceae) or *Hernandia ovigera* (Hernandiaceae) or *Vitex cofassus* (Verbanaceae), light trap (FC n°s 3867-3871); 3♂, 4♀: *idem*, 18.vi.1996, O. Missa leg., on ?, light trap (FC n°s 3942-3947); 1♂, 1♀: *idem*, 26.vi.1996, O. Missa leg., on *Terminalia sepikana* or *Piteleocarpus indicum* (Combretaceae and Fabaceae respectively), fogging (FC n°s 3884-3885); 1♀: *idem*, 27.vi.1996, O. Missa leg., host unknown, fogging (FC n° 3978); 1♀: *idem*, 03.vii.1996, O. Missa leg., on ?, fogging (FC n° 3981).

References: *Serropeltis strigicollis* Poppius, 1912a: 426-427, as new species; *Guisardus strigicollis* Carvalho & Gross 1979: 450-451, redescription, MG; Schuh 1995: 676, catalogue; Chérot 2002: 198, 205, 210, SEM, misidentified as *Guisardus* sp. cf. *bogorensis* Carvalho in Carvalho et Gross, 1979; Schuh 2002-2013, online catalogue.

Discussion: Carvalho & Gross (1979: 444) separate the *Guisardus* species mainly on colouration character states. The majority of our specimens conform to their description of *G. strigicollis* (Plate 11 fig. 2 and plate 12 fig. 1). However, in the Baiteta Forest specimens, the clavus is generally dark (Plate 12 figs 1-2) but not always totally black (Plate 12 figs 4-5), the dark pronotal spots are sometimes almost erased (Plate 12 fig. 3) and the scutellum is sometimes darkly puncturated (Plate 12 fig. 4, arrows). Such dark punctures on the scutellum would be a characteristic of *G. cristovalensis* Carvalho in Carvalho & Gross, 1979 according to Carvalho & Gross' key even if the specimen of *G. strigicollis* pictured in their Fig. 45, p. 451 possesses four dark punctures and if the punctures of some Baiteta Forest's specimens are clear (Plate 12 fig. 5) or absent. Some other specimens look similar to *G. chinensis* Carvalho in Carvalho & Gross, 1979 by their pronotal and scutellar colouration (Plate 12 fig. 2), but their head is totally dark brown to black and their second antennal segment largely dark. We interpret this as intraspecific variability and we suggest the validity of the species *G. chinensis*, *G. bogorensis* and *G. cristovalensis* should be carefully reexamined.

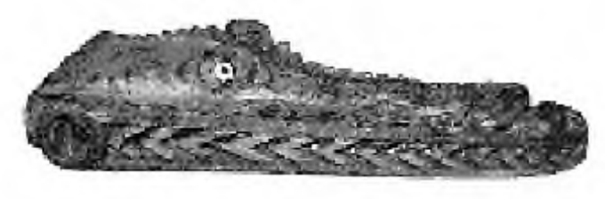
G. strigicollis (Poppius, 1912a) was described only on the holotype female from Indonesia, Mentawai (= Mentawei) Archipelago, Sipura (= Sipora) Island, Sereinu. Carvalho & Gross (1979: 451) cite additional specimens from Papua Barat and Papua New Guinea.

Hosts: In Baiteta Forest, hundred specimens were recorded, in 27 independent collection events, by light traps and by fogging, from *Celtis philippinensis* (Ulmaceae), *Chisocheton ceramicus* (Meliaceae), *Dracontomelum dao* (Anacardiaceae), *Ficus* sp. (Moraceae), *Pometia pinnata* (Sapindaceae), *Tristiropsis acutangula* (Sapindaceae) and several unidentified (other) plants.

Hyalopeplinus Carvalho in Carvalho et Gross, 1979

References: *Hyalopeplinus* Carvalho in Carvalho et Gross, 1979: 451, as new genus; Schuh 1995: 676-677, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Callicratides antennalis* Distant, 1920, original designation.



***Hyalopeplinus papuensis* Carvalho in Carvalho et Gross, 1979** (Plate 11 fig. 3)

Paratype ♀ BMNH: Papua New Guinea: Northern: "Gulariu River, Biniguni, 14.vii to 14.viii.1953, Tate M. G. leg." (FC n° NE208).
Additional material 7♂ & 4♀ ISNB: Papua New Guinea: Madang: Baiteta, 03.viii.1995, O. Missa leg., *Neonauclea* sp. (Rubiaceae), fogging (FC n°s 3831-3832, 3839-3841, 3887-3892).

References: *Hyalopeplinus papuensis* Carvalho in Carvalho et Gross, 1979: 458-459, as new species, male genitalia; Schuh 1995: 677, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Hyalopeplinus papuensis* Carvalho in Carvalho et Gross, 1979 was described using eight specimens, one from Indonesia, Papua Barat (the male paratype from Warris) and seven from Papua New Guinea. The specimens from Papua New Guinea were recorded on different islands (the male holotype and two paratypes of the same sex on Rossel Island, Louisiade Archipelago, Milne Bay Province, a female paratype on Sudest Island, Louisiade Archipelago, Milne Bay Province and another female from west of Willaumes, West New Britain Province, New Britain) but also on the mainland (the female paratype from Biniguni, Northern Province and a male paratype from Ruka, Northern Province).
Hosts: In Baiteta Forest, eleven specimens were recorded by fogging in a unique collection event on *Neonauclea* sp.

***Hyalopeploides* Poppius, 1912a**

References: *Hyalopeploides* Poppius, 1912a: 419-420, as new genus; Carvalho & Gross 1979: 463-476, 477; Schuh 1995: 677-678, catalogue; Schuh 2002-2013, online catalogue.
Type species by original designation and monotypy: *Hyalopeploides cyanescens* Poppius, 1912.

***Hyalopeploides cyanescens* Poppius, 1912a** (Plate 11 fig. 4)

Paralectotype ♂ ZMHF, designation by Carvalho in Carvalho & Gross, 1979: 467: Papua New Guinea: Morobe: "*Hyalopeploides cyanescens* Popp. Det. J.C.M. Carvalho" / "Mus. Zool. Helsfors loan 2973" / "Mus. Zool. H:fors Spec. typ. N°9877 *Hyalopeploides cyanescens* Popp." / "*Hyalopeploides cyanescens* gen. nov. et sp." / "Lemien, Berlinhafen" / "N. Guinea, Biró" (FC n° 4935).
Additional material ISNB: Papua New Guinea: Madang: 1♂: Sisimangun Village, 01.vii.1981, Leg. J. Van Goethem (FC n° 349); 1♂: *idem*, Baiteta, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n° 3893); 1♀: Mandy Passage St. 1030, 04.v.1982, P. Grootaert (FC n° 351); Morobe: 1♀: Wau, vi.1981, 1220m., Leg. J. Van Goethem (FC n° 350).

References: *Hyalopeploides cyanescens* Poppius, 1912a: 421, as new species; Carvalho & Gross 1979: 467, 468 (redescription); Schuh 1995: 677-678, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Hyalopeploides cyanescens* Poppius, 1912 was described using three specimens from Papua New Guinea: the female lectotype from Erima, Astrolabe Bay, Madang Province and two male[8] paralectotypes from Lemien Forest, Berlinhafen (presently Aitape), East Sepik, Papua New Guinea. Carvalho & Gross (1979: 467) mention an additional specimens from Papua Barat collected by light trap.
Hosts: In Baiteta Forest, *H. cyanescens* Poppius, 1912 was recorded only once, by fogging, on *Neonauclea* sp. (Rubiaceae).

***Hyalopeplus* Stål, 1871**

References: *Hyalopeplus* Stål, 1871, as new genus; Carvalho & Gross 1979: 479-511, 512, 513, 514, 515, revision; Schuh 1995: 678-680, catalogue; Kerzhner & Josifov 1999: 203, catalogue; Schwartz & Chérot 2005: 8-9, discussion of subgenera validity; Schuh 2002-2013, online catalogue.
Type species: *Capsus vitripennis* Stål, 1855, by monotypy, a junior homonym of *Capsus vitripennis* Say, 1832, now *Hyalopeplus lineifer* (Walker, 1873a), cf. Kerzhner & Schuh, 1995: 2.

***Hyalopeplus (Adhyalopeplus) similis* Poppius, 1912c** (Plate 11 fig. 5)

Lectotype ♀ ZMHF of *Hyalopeplus similis* Poppius, 1912c, the designation by Carvalho in Carvalho & Gross 1979: 509: Tanzania: "Deutsch O. Africa, Nyassa-See, Langenburg, iv.1898, Fülleborn"[9] (FC n° 3775).

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[8] The male sex was then known since Poppius' original description (*contra* Carvalho & Gross 1979).

[9] In their catalogue of Australian Heteroptera, Cassis & Gross (1995: 160) cite the type-locality of *Hyalopeplus similis* Poppius, 1912 as "Langenburg, New Guinea". However, Poppius (1912c: 8) described his new species from "Deutsch O. Afrika" for Deutsch Ostafrika, in English "German East Afrika", a German colony (between 1885 and 1918, the end of World War I) including what is now Burundi, Rwanda and the mainland part of Tanzania (German's Tanganyika). From 1896 to 1900, Friederich Georg Hans Fülleborn (1866-1933) "served as physician to troops in German East Africa with a special commission to pursue scientific studies (...). Dependent largely upon his own resources and ingenuity, he achieved marked success as a physician and in addition made noteworthy observations on the natural history of the region"

Lectotype ♂ ZMHF of *Hyalopeplus horvathi* Poppius, 1912c, the designation by Carvalho in Carvalho & Gross 1979: 509, the synonymy by Carvalho in Carvalho & Gross 1979: 508: São Tomé: "São Tomé, *Mocquerys*" (FC n° 3776).
Holotype ♂ ZMHF of *Hyalopeplus bakeri* Poppius, 1915a, the synonymy by Carvalho in Carvalho & Gross 1979: 508: Philippines Islands: Luçon: "Los Baños, *Baker*" (FC n°3777).
Additional material: Democratic Republic of Congo: 1♂ & 1♀ MRAC: Lualaba, Ruwe, xii.1960, Dr. V. Allard (FC n°s 365-366); 1♂ MRAC: idem, i.1961, Dr. V. Allard (Fc n° 367); French Polynesia: Tahiti: 15♂ & ♀ MNHN: Mahina, ix.1982, A. Villiers (FC n°s: 755-770); Ivory Coast: 1♀ MRAC: Bingerville, viii.1963, J. Decelle (FC n° 364); Papua New Guinea: Madang: 4♂ & 1♀ ISNB: Baiteta, 12.v.1993 O. Missa leg., *Dracontomelum dao* (Anacardiaceae), fogging (FC n°s 3833-3834, 3912-3913, sans n°); Philippines Islands: Luzon: 1♂, 2♀ BPBM: Ifugao Province, Liwo, 8 km E. Mayoyao, 01.vi.1967, 1000-1300m., H. M. Torrevillas, light trap (FC n°s 192-194); São Tomé: 1♀ MRAC: 25.v.1975, J. Derron (FC n° 363); Seychelle Islands: Mahé: Mt. Fleuri: 1♀ MRAC: Mt. Fleuri, 4.i.1972, P. J. L. Roche (FC n° 361); 1♂ MRAC: idem, 23.i.1972, P. J. L. Roche (FC n° 362); Praslin: 1♀ CFC: Praslin LF, xi.1994, E. Heiss leg. (FC n° 1240).

References: *Hyalopeplus similis* Poppius, 1912c: 8, as new species; Carvalho & Gross 1979: 508-511, 512, 513-515, redescription, male genitalia, lectotype designation, synonymies; Schuh 1995: 680, catalogue; Schuh 2002-2013, online catalogue.
Discussion: *Hyalopeplus* (*Adhyalopeplus*) *similis* Poppius, 1912 is a widely distributed species, known from Africa (Congo, Ivory Coast, São Tomé, Tanzania) to Pacific Islands (Tahiti) by way of India, Japan, SE Asia and Australia (Carvalho & Gross 1979; Cassis & Gross 1995; Schuh 1995; 2002-2013). It is also a relatively variable taxon, as showed by Carvalho & Gross' new synonymies (op. cit.: 511) and drawings of types (pp. 512-515, Figs 236-247). The validity of closely related *Hyalopeplus longirostris* Odhiambo, 1958, from West Africa, a species omitted in Carvalho & Gross (1979) work, should be analysed in detail.

Mirini Hahn, 1833

Adelphocorisella Miyamoto, Yasunaga, 1993

References: *Adelphocorisella* Miyamoto, Yasunaga, 1993: 47, as new genus with two new species; Schuh 1995: 695, catalogue; Kerzhner & Josifov 1999: 59, catalogue; Malipatil & Chérot 2002: 103, discussion; Schuh 2002-2013, online catalogue.
Type species: *Adelphocorisella lespedezae* Miyamoto, Yasunaga, 1993, original designation.

Adelphocorisella brunnescens (Poppius, 1915a)

(Plate 13 figs 1-4)

Holotype by monotypy ♂ ZMHF: Papua New Guinea: Morobe: "Mus. Zool. Helsinki Loan n° HE05-36" / "*A. brunnescens* Miridae exot. Mirinae 1 Popp. Not *Adelphocoris*" / "*Adelphocoris brunnescens* Pop. Det. J.C.M. Carvalho" / "Mus. Zool. H:fors Spec. typ. No 10082 *Adelphocoris brunnescens* Popp." / "Mus. Zool. Helsinki Loan n° HE2974" / "*Adelphocoris brunnescens* sp. nov." (manuscript label) / "Holotipo" / "Simbang, Huon Golf" / "N. Guinea, Biró 1898".
Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 26.iii.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n° 3988); 1♂: *idem*, 05.v.1995, O. Missa leg., on *Tristiropsis acutangula* (Sapindaceae), fogging (FC n°3985); 1?: *idem*, 03.vi.1995, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n°3840); 1♂, 1?: *idem*, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n°s 3986, 3986a); 1?: *idem*, 17.vii.1995, O. Missa leg., on *Chisocheton wenlandia* (Meliaceae), fogging (FC n°3846); 1♀: *idem*, 29.vii.1995, O. Missa leg., on ?, fogging (FC n°3987); 1♂: *idem*, 02.viii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), light trap (FC n°3847); 1♂: *idem*, 03.viii.1995, O. Missa leg., ?, fogging (FC n°3849); 4♂, 1♀, 2?: *idem*, 1995, O. Missa leg., on *Piteleocarpus indicus* (Fabaceae), fogging (FC n°s 3839, 3841-3845, 3848); 1♀: idem, 26.iv.1996, O. Missa leg., on ?, fogging (FC n°3989) (ISNB); 1♀: Wanuma, viii.1968, N. L. H. Krauss leg. (compared with the type by J.C.M. Carvalho) (FC n° 4263) (MNRJ); Morobe: 1♂, 1♀: Bulolo, 24.v.1982, P. Grootaert leg. (FC n°s 267-268); 1♀: Mandy Passage, 04.v.1982, P. Grootaert leg (FC n° 269).
Other taxa examined for comparison: *Adelphocorisella lespedezae* Miyamoto & Yasunaga,

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(Stunkard 1934: 204). Moreover, "during the period 1898-1900 he held a special commission from the Konigl. Preuss. Akad. (= Prussian Akademie of Sciences) to undertake faunal and ethnological investigations of the Nyassa Province (...)", those researches covering "a wide range of subjects, extending from the spirochaetes and spirochaetosis through the diseases caused by protozoans, insects, arachnids, linguatulids, trematodes, cestodes, and nematodes" (op. cit.: 204, 205-206) but also geographical aspect of Nyassa Lake (now Lake Malawi). So, the type-locality of *H. similis* is probably situated in the former German's Tanganika territories. Pesenko & Pauly (2005: 154) confirm Langenburg is in Tanzania and give relatively accurate coordinates, quoting types of bees collected by Fülleborn at this place. According to these coordinates, Langenburg was close of the shores of Lake Malawi and of the limits between the present Iringa and Ruvuma administrative regions.

1993: Japan: Honshu: paratypes: 1♂ & 1♀ HUES: Aomori-Ken (Amoari Prefecture), Yokouchi-Yaegiku, Aomori-shi (Amoari city), Japan, 29.viii.1992., T. Ichita leg. (FC n°s: 203-204). *Adelphocorisella australis* Malipatil, Chérot, 2002 ANIC: Australia: Queensland: holotype (♂): Big Mitchell Creeck, Mareeba-Molloy Road, 04.v.1967, D. H. Coless leg.

References: *Adelphocoris brunnescens* Poppius, 1915a: 35, as new species. *Waucoris brunnescens*: Carvalho 1987b: 156-157, new combination, redescription, MG; Schuh 1995: 672, 971, catalogue [10]; Carpintero & Chérot 2002: 46, 52, MG, FG, discussion; Schuh 2002-2013, online catalogue. *Adelphocorisella brunnescens*: Chérot & Malipatil 2016: 159, new combination.

Discussion: Carvalho (1987b: 156-157) described his new genus *Waucoris* to accommodate all species described by Poppius (1915a) under the name *Adelphocoris* Reuter, 1896 from the Indo-Australian region and selected *Adelphocoris keyensis* Poppius, 1915 as type species. Unfortunately, Carvalho's description (op. cit.: 156) of the new genus is very short. He separates *Waucoris* from *Adelphocoris* by the absence of phallic comb, by the shape of larger areola of membrane and by the colouration of tibial spines (yellow or brown pale in *Waucoris*, black in *Adelphocoris*).

On the basis of these character states, *A. brunnescens* Poppius, 1915a was classified in *Waucoris*. *A. brunnescens* was described on the male holotype from Simbang, Huon Golf (Morobe, Papua New Guinea) alone. Carvalho (1987b) and Carpintero & Chérot (2002) cite additional specimens from Papua New Guinea (Central Province, Madang, Morobe, New Britain).

The study of some of those specimens clearly shows that *A. brunnescens* differs of the other *Waucoris* species. *Waucoris keyensis* (Poppius, 1915), *Waucoris papuanus* (Poppius, 1915) and *Waucoris wauensis* Carvalho, 1987 are larger, non *Phytocoris*-like, frequently yellow, orange or black, shiny bugs, with a simple, recumbent, white dorsal pilosity and classical metafemora, devoid of a pair of erect stiff black setae on anterior corners of pronotum of the females (these setae are obvious in *Adelphocorisella* species females, they are present only in the males of true *Waucoris*, and more reduced, narrower).

A. brunnescens (Poppius, 1915a) agrees with original description of *Adelphocorisella* by Miyamoto & Yasunaga (1993: 47-48) in virtually all major characters. The measurements, the relatively elongate, *Phytocoris*-like habitus, the light brown dorsal colouration tinged with red, the dull aspect of dorsal surface, covered with silvery recumbent silky pubescence and sparse brownish suberect setae, the long antenna with the three last segments subequal in thickness, the pair of erect, stiff, black setae on anterior corners of pronotum of both sexes, the hemelytra with a sparse, narrow and shallow punctation, the long legs with red spots and the metafemora broadest and flattened basally, with a furrow on dorsal surface, are very similar to those of *A. lespedezae* Miyamoto & Yasunaga, 1993 and *A. australis* Malipatil & Chérot, 2002. The male genitalia of *A. brunnescens* were described by Carvalho (1987b: 157, figs 2-4) and Carpintero & Chérot (2002: 52, figs 28-29). They are close to the structures described by Malipatil & Chérot (2002: 101, figs 2-6) in *A. australis*, particularly the stout right paramere, with small primary apophysis, secondary and tertiary lobes, the very large secondary gonopore and the elongate apically curved true spiculum. However, the two species can be easily separated by the shape and position of other phallic sclerites (two small sclerites near the secondary gonopore in *A. australis*, a convoluted ACH in *A. brunnescens*). Female genitalia of *A. australis* (cf. Malipatil & Chérot op. cit., 102, figs 9-10), *A. brunnescens* (cf. Carpintero & Chérot op. cit., 52, figs 30-31) and, less obviously, *A. lespedezae* (cf. Malipatil & Chérot op. cit., 102, figs 7-8) are also relatively similar (shape of parieto-vaginal rings, rings laterally reinforced, B and E structures of posterior wall reduced). Consequently, Chérot & Malipatil (2016) suggested the following new combination: *Adelphocorisella brunnescens* (Poppius, 1915a) we are able to confirm here.

Hosts: In Baiteta Forest, 18 specimens of *Adelphocorisella brunnescens* (Poppius, 1915a) were recorded in 12 independent collection events, by fogging and by light trap, on 7 different identified host plants: *Chisocheton welandia* (Meliaceae), *Dracontomelum dao* (Anacardiaceae), *Dysoxylum patigravianum* (Meliaceae), *Neonauclea* sp. (Rubiaceae), *Pitelocarpus indicus* (Fabaceae), *Pometia pinnata* (Sapindaceae) and *Tristiropsis acutangula* (Sapindaceae). A partially zoophagous behavior of this species is not impossible. It could explain these observations.

Note: The holotype by monotypy is preserved in

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[10] As pointed out by Chérot & Malipatil (2016: 159) "Schuh (op. cit.: 971) incorrectly cites "Poppius, 1914b: 383" as original reference and *Lygus brunnescens* Poppius, 1914 as original combination for this species, thus misinterpreting Carvalho's (1987b) new combination of *Adelphocoris brunnescens* Poppius, 1915a".

ZMHF not in HNHM as stated by Poppius (1915a: 35).

Apolygus China, 1941

References: *Lygocoris Apolygus* China, 1941: 60, as new subgenus; Schuh 1995: 792-793, 793-806, catalogue; Lu & Zheng 1997: 162, rank upgrade; Zheng et al. 2005: 137-182, 695-696, redescription, in fauna; Schuh, 2002-2013, online catalogue.
Type species: *Lygaeus limbatus* Fallén, 1807 by original designation.

Apolygus sp.

Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 26.iii.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n° 4060); 2♀: Baiteta, 19.v.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n°s 4056, 4061); 1♂: Baiteta, 30.vi.1995, O. Missa leg., on *Ficus* sp. (Moraceae), fogging (FC n° 4058); 1♀: Baiteta, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n° 4059); 1♂: Baiteta, 05.vi.1996, O. Missa leg., on *Buchanania heterophylla* (Anacardiaceae) or *Hernandia ovigera* (Hernandiaceae) or *Vitex cofassus* (Verbanaceae), light trap (FC n° 4057).

Discussion: We attribute with some doubt these specimens, collected by fogging and by light trap on four different host plants, to the large genus *Apolygus* China, 1941. Additional male specimens will be useful to identify the taxon to the species level.

Argenis Distant, 1904a

References: *Argenis* Distant, 1904a: 107, as new genus; Schuh 1995: 700, catalogue; Chérot 1997a: 397-398, redescription; Zheng et al. 2005: 204, 686, 698, redescription, in fauna; Schuh, 2002-2013, online catalogue.
Type species: *Capsus incisuratus* Walker, 1873b, by monotypy.

Argenis incisuratus (Walker, 1873b) (Plate 14 fig. 5, plate 15 figs 1-6, plate 16 figs 1-9)

Holotype ♂ BMNH: Sri Lanka: "Ceylan (*Thwaites & Green*), Peradenyia, vi.1905" / "Distant Coll. 1911-383".
Additional material: Papua New Guinea: Madang: 8♀ ISNB: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n°s 3995-4002); 1♂ & 2♀ ISNB: Baiteta, 12.v.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), fogging (FC n°s 3823-3825); 1♀ ISNB: Baiteta, 12.v.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 4008); 1♀ ISNB: Baiteta, 17.v.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 4003); 1♀ ISNB: Baiteta, 17.v.1993, O. Missa leg., on ?, fogging (FC n° 4004); 3♀ ISNB: Baiteta, 19.v.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n°s 3990-3992); 2♂ ISNB: Baiteta, 20.v.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n°s 3993-3994); 1♂ ISNB: Baiteta, 10.v.1995, O. Missa leg., on *Chisocheton ceramicus* (Melicaceae), fogging (FC n° 4007); 1♂ ISNB: Baiteta, 06.vi.1995, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), fogging (FC n° 4006); 1♀ ISNB: Baiteta, 22.vi.1995, O. Missa leg., on *Neonaucela* (Rubiaceae), fogging (FC n°s 3835); 12♂, 9♀, 4? ISNB: Baiteta, 03.viii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), fogging (FC n°s 3798-3822); 1♀ & 1? ISNB: Baiteta, 03.viii.1995, O. Missa leg., on *Artocarpus incisus* (Moraceae), fogging (FC n°s 3826, 3836); 1♂ ISNB: Baiteta, 04.viii.1995, O. Missa leg., on *Neonauclea sp.* (Rubiaceae) or *Ficus crassiramea* (strangler fig, Moraceae), fogging (FC n° 3837); 1♂ ISNB: Baiteta, 1995, O. Missa leg., on *Chisocheton ceramicus* (Melicaceae), fogging (FC n° 4005); 1♀(?) ISNB: Baiteta, iv.1996, O. Missa leg., on ?, light trap (FC n°s 4011); 1♂ ISNB: Baiteta, 01.v.1996, O. Missa leg., on ?, fogging (FC n°s 4010); 1♂ ISNB: Baiteta, 03.vi.1996, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n°s 3838); 1♂ ISNB: Baiteta, 28.vi.1996, O. Missa leg., on ?, fogging (FC n°s 4009); Milne Bay: 1♂ MNRJ: Alotau, 14-28.ii.1969, Sedlacek J. et M. leg. (FC n°4413).

References: *Capsus incisuratus* Walker, 1873b: 121, as new species; *Argenis incisuratus* Distant 1904a: 107 (new combination); Carvalho & Gross 1979: 443, redescription, MG; Schuh 1995: 700, catalogue; Chérot 1997a: 399-400, redescription, FG; Zheng et al. 2005: 204-205, 686, 698, redescription, in fauna; Schuh 2002-2013, online catalogue.
Discussion: *Argenis incisuratus* was described by Walker (1873b: 121) on the basis of the male holotype from Ceylan alone. The species is recorded from Papua New Guinea for the first time.
Variability of external morphology and colouration was almost unawarded by all authors describing or redescribing this taxon (Walker 1873b; Distant 1904a & c; Carvalho & Gross 1979; Chérot 1997a). However, *Argenis incisuratus* is a very variable species, for a lot of character states, to such extent that some specimens could be easily missclassified in the genus *Tinginotopsis*. On the specimens from Baiteta Forest, the following states of characters are particularly variable:

(1) The colouration of dorsal surface of head. The dorsal surface of head (vertex and frons) is yellow to orange brown (Plate 15 fig. 1), frequently with a dark brown medial stripe on the sulcus (Plate 15

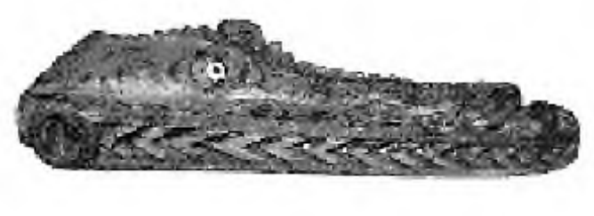

fig. 2), obvious on the holotype, or with a grey patch (Plate 15 fig. 3). Sometimes the dorsal surface of head is totally dark brown, as on the specimen studied by Carvalho & Gross (op. cit. p. 443, fig. 29);

(2) The colouration of dorsal surface of pronotum. The dorsal surface of pronotum is yellow to orange brown, frequently with brown or grey patches or stripes:

(a) some specimens have only a medial brown patch on hump's area;

(b) some specimens have two or three submedian dark brown to grey stripes arising from posterior margins of pronotal disk:

i. on the holotype, they are "W-shaped" (or crown-like),

ii. on some specimens from Baiteta Forest, they are reduced to two subparallel or slightly curved stripes (Plate 16 figs 3-4) or drop-like patches (Plate 15 fig. 4),

iii. on some other specimens they are conflating before or after the hump and eventually conflating with a stripe arising from the posterior margin of the pronotal collar (Plate 15 figs 5-6, arrow 1);

(c) almost all specimens from Baiteta Forest have a stripe arising, it, medially from the posterior margin of the pronotal collar (Plate 15 figs 4-5);

(d) almost all specimens from Baiteta Forest also have a pair of grey stripes lining the orange-yellow lateral area of pronotal margins (Plate 15 fig. 5, arrow 2), the margins being grey. Sometimes, the grey stripes directly identify the lateral margins (Plate 15 fig. 6, arrow 2);

(e) some specimens have a totally dark brown or grey pronotum, as on the specimen studied by Carvalho & Gross (op. cit. p. 443, Fig. 29);

(3) The globose areas of humeral angles are absent or very reduced on several specimens (Plate 16 fig. 1), slightly tarnished with brown (Plate 16 fig. 2) or marked (as the holotype but also several specimens from Baiteta Forest, Plate 16 fig. 3);

(4) The pronotal hump is almost absent or very reduced, the corresponding area being tarnished with brown (Plate 16 fig. 4) or developed, large (Plate 16 fig. 5);

(5) The "*Tinginotum*-like" pruinose silvery patches of clavus (and even some of parts of corium) can be obvious (Plate 16 fig. 7, arrows) or reduced (Plate 16 fig. 8, arrow) to absent (Plate 16 fig. 9).

In their keys of genera, Zheng et al. (2005) separate *Argenis* from the genera *Tinginotum* Kirkaldy, 1902a and *Tinginotopsis* Poppius, 1915b by the uniformly clear yellow exocorium (except a small brown patch, prolongation of endocorial large patch). Unfortunately, a species such as *Tinginotopsis tuberculatus* Eyles, 2000 (cf. Eyles 2000: 117, Fig. 29) also has an exocorium that is uniformly clear yellow. To make the matter worse still, all recent authors looking for differences between *Tinginotum* Kirkaldy, 1902a and *Tinginotopsis* Poppius, 1915b (as Carvalho 1987a; Yasunaga 1999; Eyles 2000) stress the pronotal hump (gibbosity) of the latter. However, the variability of this state of character combined with variability of "*Tinginotum*-like" hemelytral pruinose silvery patches in *Argenis* is such that several specimens of *A. incisuratus* from the same series (collected the same day, on the same tree) could easily be classified in the three genera *Argenis*, *Tinginotum* and *Tinginotopsis*. The validity of these genera should be analysed on a world scale, including Indo-Pacific, Australian and African species of the group.

Hosts: In Baiteta Forest, 55 specimens of *Argenis incisuratus* (Walker, 1873) were recorded in 18 independent collection events, by light traps and by fogging, from *Artrocarpus incisus* (Moraceae), *Celtis philippinensis* (Ulmaceae), *Chisocheton ceramicus* (Meliaceae), *Dracontomelum dao* (Anacardiaceae), *Dysoxylum patigravianum* (Meliaceae), *Neonauclea* sp. (Rubiaceae) and *Pometia pinnata* (Sapindaceae). If the 25 specimens collected (by fogging) on *Dysoxylum patigravianum* were found during one collection event, the 14 specimens collected on *Dracontomelum dao*, by fogging and by light trap, were found during 5 independent collection events.

Aristopeplus **Poppius, 1912a**

References: *Aristopeplus* Poppius, 1912a: 421, as new genus; Carvalho & Wallerstein 1977: 49-53, revision; Schuh 1995: 700, catalogue; Kerzhner & Schuh 2001: 286, correction to Schuh's catalogue; Schuh 2002-2013, online catalogue.

Type species: *Aristopeplus imperialis* Poppius, 1912a, original designation.

Aristopeplus imperialis **Poppius, 1912a** (Figs 69-70, 78, plate 13 fig. 11)

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 09.iv.1996, O. Missa leg., on *Dysoxylum arnoldianum* or *Homalium foetidum* (Meliaceae and Flacourtiaceae respectively), light trap (FC n° 3852).

Other taxa examined for comparison (Plate 13 figs 12-14): *Aristopeplus divisus* (Walker, 1873b). Indonesia: Ternate Island: Holotype ♂ BMNH: "*Saunders* 65-13" (FC n° NE 14); 1♂: same label than the holotype (FC n° NE187)[11]. The Moluccas: Morotai: 1♀ AMNH:

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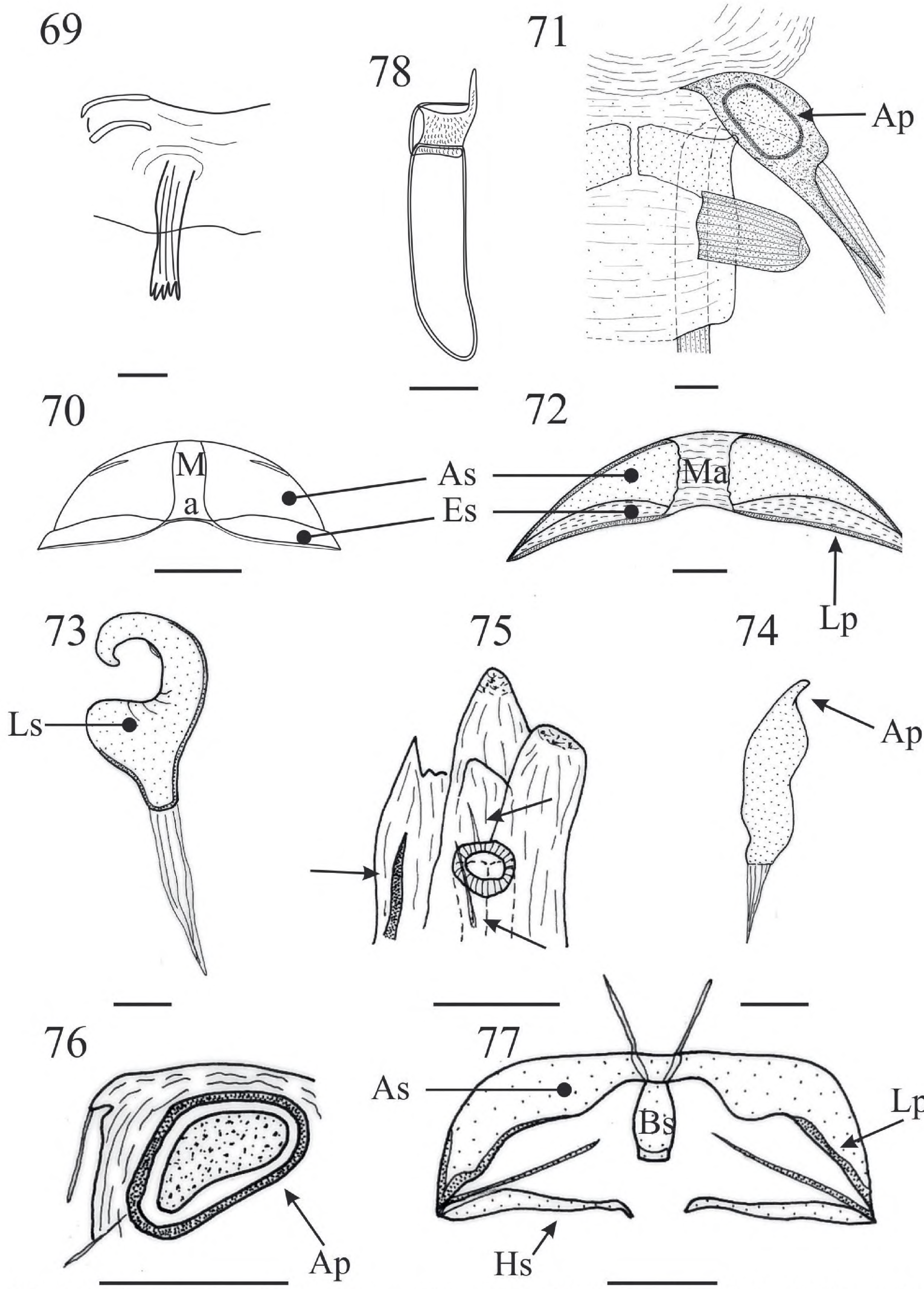
[11] Walker (1873b: 163) cites explicitely only one



Figures 69-78. Genital organs and eggs of Papuan Heteroptera. 69-72: Female genitalia of *Aristopeplus* species, respectively *A. imperialis* FC n° 3852 and *A. divisus* FC n° 1317. 69 & 71 – Parieto-vaginal rings, dorsal view; 70 & 72 – Posterior wall; 73-77: *Diognetus intonsus* Distant, 1904c, genitalia of both sexes. 73-75 – ♂ genitalia of FC n° 81; 73 – Left parameres; 74 – Right parameres; 75 – Endophallus; 76-77 – ♀ genitalia of FC n° 82; 76 – Parieto-vaginal rings, dorsal view; 77 – Posterior wall; 78 – *Aristopeplus imperialis* FC n° 3852 egg [scale bar 0.1 mm, except fig. 74 scale bar 0.05 mm, figs 70 and 78 scale bar 0.5 mm].

specimen in his type series. In Walker's catalogue, the specimens are cited, for each species, after references or descriptions and coded with a letter. When Walker had several specimens from the same "place"– often a relatively large area – and collector, he used as many letters as necessary, separated by a dash, for example "a-d. England. From M. Stephens' collection." (Walker, op. cit.: 49, about *Miris erraticus*). About *Monalonion divisum* (original combination), Walker (1873b: 163) wrote "a. Ternate. From Mr. Wallace's collection". The description

Dutch East India, Morotai, 1944, *Ernest Reimchiissel* (FC n° 1317). *Aristopeplus regalis* Poppius, 1912. Papua New Guinea: Central Province: Lectotype ♀ ZMHF [the designation by Carvalho & Wallerstein, 1977: 51]: "Moroka, vii-xi.1893, *Loria*" (FC n° 4934). East Sepik: 1♀ MNRJ: Amok, 06.i.1960, Maa T. C. leg. (Compared with the type by J.C.M. Carvalho) (FC n° 4223). *Aristopeplus rubronotus* Carvalho & Wallerstein, 1977. Papua New Guinea: Woodlark Island (Murua): Holotype ♂ MNRJ: "Woodlaark I. (Murua), Kulumadau, 03.ii.1957, Brandt W. W." (FC sans n°).

References: *Aristopeplus imperialis* Poppius, 1912a: 421, as new genus; Carvalho & Wallerstein 1977: 50-51, redescription; Schuh 1995: 700, catalogue; Kerzhner & Schuh 2001: 286, correction to Schuh's catalogue; Schuh 2002-2013, online catalogue.

Addition to the original descriptions: The female genitalia of *Aristopeplus* species were still unknown. They are described hereafter for the first time, for two species, *A. imperialis* and *A. divisus*. Unfortunately, we did not have the opportunity to study the female genitalia of the two other species, even though we examined several specimens of them.

Female genitalia of *A. imperialis*. Seminal depository unknown. Parieto-vaginal rings difficult to see, dorsal labiate plate apparently with three sclerotisations (Fig. 69) or reinforcements and ventral labiate plate unsclerotised. Dorsal wall membranous, lateral oviducts stout and elongate. Posterior wall (Fig. 70) elongate. B structure absent, the inter-ramal sclerites or A structures (As) linked only by a membranous area (Ma), dorsal margin straight to slightly concave and ventral margins convex. Lateral lobes or H structures absent. Egg (Fig. 78) with long horn.

Female genitalia of *A. divisus*. Seminal depository lacking ring. Parieto-vaginal ring (Fig. 71, Ap) elongate, anterior and posterior margins straight, latero-inner and latero-outer margins convex, shorter distance between rings longer than length of major axis; no prolongation on ring margins; dorso-labiate plate large, complex in shape, pointed apically and basally, margins unreinforced; ventral labiate plate unsclerotised; dorsal wall membranous, lateral oviduct stout. Posterior wall (Fig. 72) elongate. B structure absent, inter-ramal sclerites or A structures (As) linked only by a membranous area (Ma); dorsal margin straight to slightly concave and ventral margins convex. Inter-ramal lobes or E structures (Es) elongate, fused with a pair of lateral plates (Lp). Lateral lobes or H structures absent.

Discussion: *Aristopeplus imperialis* Poppius, 1912 was described on the basis of the male holotype from Friedrich-Wilhelmshafen (= Madang, Madang Province, Papua New Guinea) alone. Carvalho & Wallerstein (1977: 51) mention one additional female specimen from Milne Bay, Papua New Guinea.

Hosts: Unknown still. In Baiteta Forest, the specimen of *Aristopeplus imperialis* Poppius, 1912 was recorded, by light trap, from *Dysoxylum arnoldianum* (Meliaceae) or *Homalium foetidum* (Flacourtiaceae).

Bertsa Kirkaldy, 1904

References: *Bertsa* Kirkaldy, 1904: 702, as nomen novum for *Berta* Kirkaldy, 1902b; Yasunaga 1992a: 31-32, redescription; Schuh 1995: 701-702, catalogue; Cassis & Gross 1995: 163, catalogue; Kerzhner & Josifov 1999: 70, catalogue; Chérot 2000: 312-315, generical validity; Zheng et al. 2005: 205-206, 687, 699; Schuh 2002-2013, online catalogue.

Type species: *Capsus lankanus* Kirby, 1891, by monotypy.

Bertsa lankana (Kirby, 1891) (Plate 14 fig. 6)

Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 17.v.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 3898); 1♀: *idem*, 19.v.1993, O. Missa leg., on *Pometia pinata* (Sapindaceae), light (FC n° 3896); 1♂: *idem*, 31.v.1993, O. Missa leg., on *Pometia pinata* (Sapindaceae), light (FC n° 3897); 1♂: *idem*, 06.vi.1995, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), fogging (FC n° 3895); 1♀: *idem*, 15.iv.1996, O. Missa leg., on *Terminalia sepinkana* or *Piteleocarpus indicum* (Combretaceae), light trap (FC n° 3894).

References: *Capsus lankanus* Kirby, 1891: 107, as new species; *Bertsa lankana*: Yasunaga 1992a: 20, record from Japan, male genitalia; Schuh 1995: 702, catalogue; Cassis & Gross 1995: 163, lectotype designation, catalogue; Kerzhner & Josifov 1999: 70, catalogue; Chérot 2000: 312-315, 317, discussion, female genitalia; Zheng et al. 2005: 206-208, redescription, in fauna, MG; Schuh 2002-2013, online catalogue.

Discussion: *Capsus lankanus* Kirby, 1891 was described on the basis of some type specimens from "Ceylan". Kirby's (1891: 107) inaccurate original description does not give information about

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does not mention any variability. Consequently, the membership of the second specimen to Walker's type series is doubtful. Carvalho & Wallerstein (1977: 50) did not even cite it.

type-series size. However, the short text includes several data about species variability. We can consequently conclude that Kirby examined more than one specimen. Additional specimens from Australia, China, Indonesia, Japan, Malaysia and the Philippines were cited by subsequent authors (Cassis & Gross 1995; Chérot 2000; Yasunaga 1992a; Zheng et al. 2005). The species is recorded for the first time from Papua New Guinea.

According to Zheng et al. (2005: 687), *Bertsa lankana* (Kirby, 1891) could easily be distinguished from their new Chinese species, *B. major*, by the colouration of dorsal pilosity, the extension of the eyes in lateral view and the shape of the left paramere primary apophysis' apex. On the basis of these characters states, our specimens could be classified as *B. lankana*, all of the three species described from Micronesia (cf. Carvalho 1956; Chérot 2000) differing by the overall colouration.

Hosts: The specimens of *Bertsa lankana* (Kirby, 1891) of Baiteta Forest were recorded in five independent collection events, by fogging and light trap, on *Celtis philippinensis* (Ulmaceae), *Dracontomelum dao* (Anacardiaceae) and *Pometia pinnata* (Sapindaceae). Yasunaga (1992a) quotes the species on *Mallotus* sp. (Euphorbiaceae) and as sometimes attracted at light in Japan.

***Diognetus* Distant, 1904c**

References: *Diognetus* Distant, 1904c: 431-432, as new genus; Carvalho 1959: 85, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Diognetus intonsus* Distant, 1904c, by original designation.

= *Diophantus* Distant, 1909b: 510, as new genus; Distant 1910b: 253, copy of original description; Carvalho 1952: 94, new generical synonymy; Carvalho 1959: 85, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Diophantus literatus* Distant, 1909b, by monotypy (cited as type species by Distant, 1910b: 252).

= *Gorna* Poppius, 1914a: 130 **syn. nov.**, as new genus; Carvalho 1959: 96, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue.

Type species: *Gorna pilosa* Poppius, 1914a, by original designation.

Redescription: Mid-sized mirine bug, with double dorsal pilosity, including long, stiff, erect, brown to black, bright setae and shorter, adpressed, slightly silky, golden to ochraceous setae. Head: Dorsal surface yellow to dark brown, sometimes with brown strip in slight median incurvation, lacking sulcus. Clypeus free, uncovered by the frons in dorsal view; maxillary and mandibular plates without carina or tubercle; punctation and striation of frons and vertex narrow and shallow; the setae stiff, elongate (particularly on frons), erect. Eyes pilose, dark brown, large, reaching pronotal apical ring in dorsal view. Two last antennal segments narrower than second, all sub-cylindrical; first and second segments with long, stiff, erect, brown to black setae. Vertex marginate. Labium reaching meso- or metacoxae. Thorax. Pronotum: Dorsal surface yellow to dark brown, with a narrow yellow posterior margin and a larger sub-apical dark brown to black transverse fascia (sometimes shaded medially). Punctation wide and relatively deep, dense. Pilosity long, stiff, sub-erect to erect, brown to black, shiny, particularly dense and long on lateral margins. Pronotal callosities large, with dark anterior patches in some males. Posterior pronotal margin straight medially; humeral angles smoothly curved; lateral margins lacking carinal knob. No globose area. Scutellum: Relatively flat. Dorsal surface yellow to dark brown, apex yellowish. Punctation and striation narrow and shallow. Pilosity double, including long, stiff, erect, brown to black, bright setae and shorter, adpressed, slightly silky, golden to ochraceous setae. Mesoscutum uncovered, with lateral fossae, pilosity silky, adpressed. Legs: Pilose, setae very elongate, stiff, erect. Tibias with brown spines and black spinulae. Hemelytra: Surface opaque, yellow brown to dark brown with darker patches, red bright in some males. Striation of clavii and coria narrow and shallow. Punctation of clavii and coria relatively wide and deep, more reduced apically on coria, sometimes even indistinct. No Hyalopepline-like line of punctations along the claval vein. Pilosity double, including long, stiff, erect, brown to black, bright setae (common on lateral margins of exocorium) and shorter, adpressed, slightly silky, golden to ochraceous setae. Cuneus brown to red shiny with a basal yellow line. Membrane fuscous, mottled with grayish beyond the middle. Male more elongate, female more rounded, stout.

Discussion: Based on the examination of the lectotypes and holotype by monotypy, we consider the nominal genera *Diognetus* and *Gorna* as synonyms. The three nominal species perfectly conform to both generic descriptions given by Distant (1904c) and Poppius (1914a). The habitus of the type species are very similar: the ovate shape of female, the head structure (particularly the marginate vertex and antenna shape), the double dorsal pilosity, including long, stiff, erect, brown to black setae and shorter, adpressed, slightly silky, golden to ochraceous setae, the dorsal punctation (wide and relatively deep on the pronotum, more reduced, shallow on the hemelytra) are nearly identical. Accordingly, we propose that the three nominal species are congeneric and suggest the new generical synonymy:

***Diognetus* Distant, 1904b**

= *Gorna* Poppius, 1914a **syn. nov.** (new subjective junior synonym)

***Diognetus intonsus* Distant, 1904c** (Figs 73-77, 79-85, plate 14 figs 7-9)

= *Diognetus literatus* (Distant, 1909b): 510-511 **syn. nov.**

Lectotype ♀ BMNH of *Diognetus intonsus* Distant, 1904c [**present designation**]: Sri Lanka: lectotype: Ceylan: Maskelyia, Green.

Lectotype ♀ BMNH of *Diognetus literatus* (Distant, 1909b) [**present designation**]: Sri Lanka: Ceylan: Ohiya, Green (very damaged specimen).

Additional material: India: 1♂ BMNH: south India, T.V. Campbell, Coll. B.M. 1930-599 (FC n° 81); Sri Lanka: 1♂: Maskelyia, Green." (classified as intonsus); 1♂ BMNH: Ohiya, Green" (classified as literatus); 1♀: Uva, P. Madulsima, 12.xii.1908, T.B.F. (FC n° 82); 1♂ AMNH: N.E., Dist. Kanda-Ela, Reservoir, 5-6 min S.O. Nuwara Elyia, 6200 feets, 10-21.ii.1970, Davis & Row (FC n° 1316). Papua New Guinea: 1♂ ISNB: Madang: Baiteta, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n° 3989).

Other taxa examined for comparison: Diognetus sp.: Philippines Islands: Negros Island: 1♂ & 1♀ AMNH: 1300 feets, Camp Lookout, Dunagete, 15.ii – 15.iv.1961, T. Schneirla & E. Reyes (FC n°s 1317-1318).

References: *Diognetus intonsus* Distant, 1904c: 432, as new species; Carvalho 1959: 85, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue; *Diognetus literatus* (Distant, 1909b): 510-511, as a new species; Distant 1910b: 253; Carvalho 1952: 94, comb. nov., in catalogue; Carvalho 1959: 85, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue.

Redescription: External anatomy - see generic redescription: Measurements in mm (male FC n° 82 – female FC n° 83): Total length: 5.96 – 5.28; width: 1.8 – 2.8; medial length of pronotum: 1.02 – 1.06; posterior width of pronotum: 1.71 – 1.81; vertex width: 2.24 – 1.35; eyes width: 0.42 – 0.37; length of antennal segments: I: 0.61 – 0.53; II: 1.90 – 1.82; III: 0.82 – 0.92; IV: broken; medial length of scutellum: 0.90 – 0.73; basal width of scutellum: 0.86 – 0.86; length of cuneus: 0.86 – 0.86; width of cuneus: 0.73 – 0.69.

Male genitalia: Left paramere with large sensory lobe (Fig. 73, Ls). Right paramere with blunt primary apophysis (Fig. 74, Ap1). Endophallus including three tiny sclerites (Fig. 75, arrows).

Female genitalia: Seminal depository membranous, devoid of sclerite. Parieto-vaginal rings (Fig. 76, Ap) large, totally separated, anterior, posterior and outer margins straight, inner margins convex. Anterior margin of dorsal labiate plate slightly sclerotised laterally. Ventral labiate plate sclerotised. Posterior wall elongate (Fig. 77), the B structure (Bs) restricted to quadrangular base (or dorsal structure), without median process (or foot) and posterior plate, inter-ramal sclerites or A structures (As) with curved dorsal margin and straight ventral and lateral margins. No true inter-ramal lobes or E structure but a pair of lateral plates (Lp). Lateral lobes or H structures (Hs) elongate.

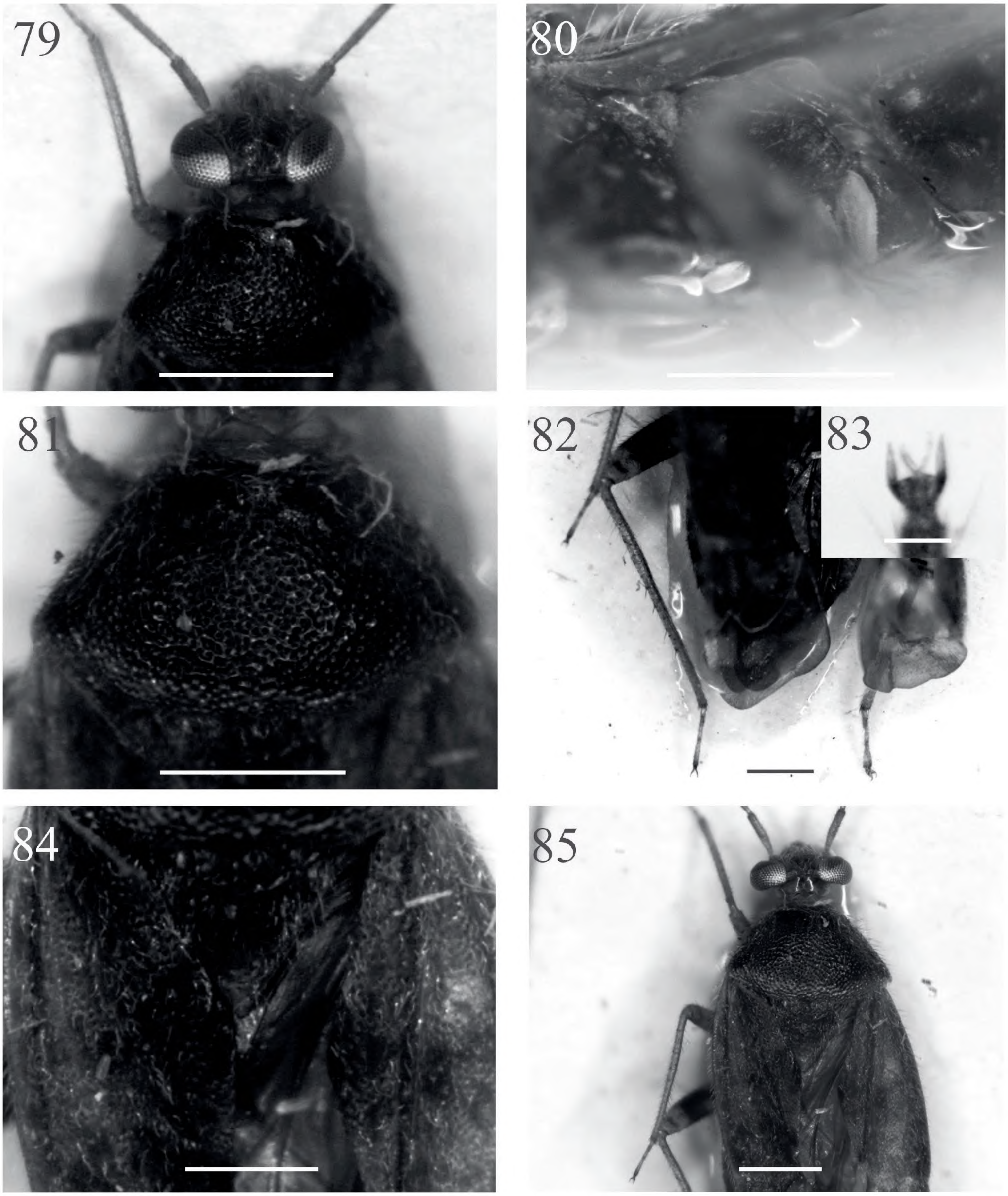
Discussion: *D. intonsus* was described at least on a female from Maskelyia, Ceylon and is recorded from Papua New Guinea for the first time. *D. literatus* was described at least on a female from Ohyia, Ceylon. The Museum of Natural History's collections include also a male of each nominal species, belonging apparently to the corresponding type-series but lacking type label. Because Distant's texts (1904c, 1909) do not include information on type-series size, on the sex of the examined specimen(s) or on the species variability, and because these male specimens are lacking type label, their nomenclatorial status remain unclear. Consequently, we apply the Recommendation 73F of the fourth edition of International Code of Zoological Nomenclature (ICZN 1999: 80-81) and we designated the two females as lectotype of their respective nominal species.

Both nominal species *D. intonsus* and *D. literatus* are very close. The total length (5.5 mm); the frons and vertex slightly curved medially with a longitudinal dark brown stripe; the large eyes, joining the anterior margin of pronotum; the antenna yellow brown, with the first segment about as long as the head, the second about three times as long as the first; the posterior part of pronotum with a sub-apical transverse fascia dark brown to black, larger in the male than the female (the black spots of humeral angles mentioned by Distant, 1909b, in *D. literatus* are in fact the extremities of this fascia, this is obvious on the female lectotype); the pronotal posterior margin yellowish, as the apex of scutellum; the hemelytra ochraceous; the cuneus shiny castaneous (female)

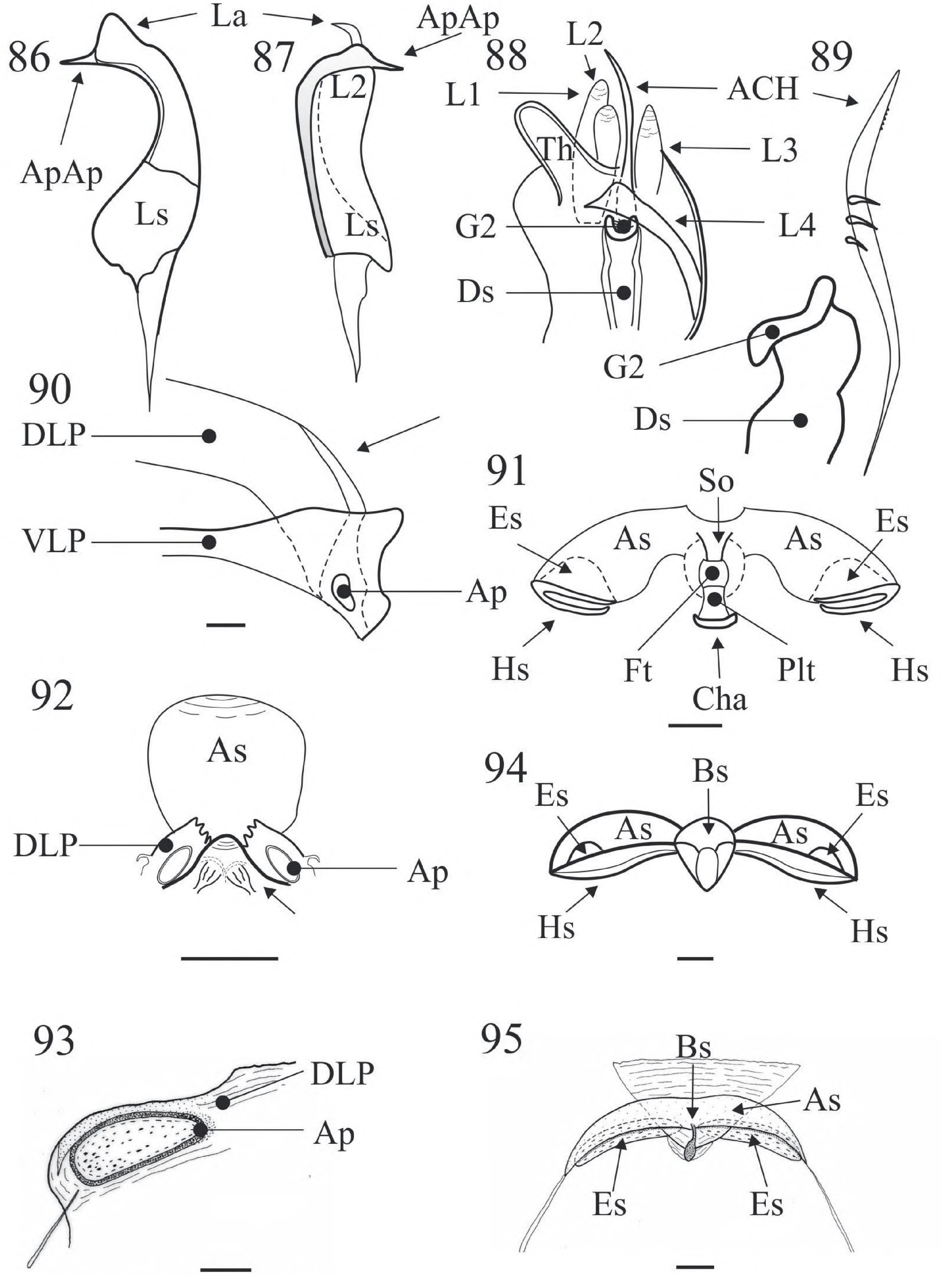
to red (male); the membrane fuscous, mottled with grayish beyond the middle are virtually the same. Accordingly, we propose the following synonymy: *Diognetus intonsus* Distant, 1904b = *D. literatus* (Distant, 1909b) (**new subjective junior synonym**).
Hosts: In Baiteta Forest, *Diognetus intonsus* was recorded once, by fogging, on *Neonauclea* sp.

Diognetus pilosus (Poppius, 1914a) comb. nov.
(Plate 14 fig. 10)

Holotype by monotypy ♀ ZMHF: Indonesia: Java: "Mus. Zool. Hels. Loan n° HE 96-31" / "Mus. Zool. H:fors. Spec. typ. n° 9977 *Gorna pilosa* Popp." / "*Gorna pilosa* gen. nov. et sp. B. Poppius Det." / "Tijnj(i)ruan, W. Java., 1400 m., Malabar geb(irge) [1700m]" (FC n° 935).



Figures 79-85. *Diognetus intonsus* Distant, 1904, ♂ FC n° 3989. 79 – Head, dorsal view; 80 – Thorax, lateral view; 81 – Pronotal surface; 82 – Left hind leg; 83 – Pretarsus and claw; 84 – Left clavus; 85 – Habitus, dorsal view. [scale bar 0.5 mm, except figs 79, 81 and 85 scale bar 1 mm].



Figures 86-95. Genital organs of Papuan Heteroptera. 86-91: *Eurystylus costalis* Stål, 1871, Genitalia of both sexes; 86. Left paramere; 87 – Right paramere; 88 – Endophallus; 89 – Detail of ACH, latero-ventral view; 90 – Parieto-vaginal rings, ventral view; 91 – Posterior wall; 92-95 – *Macrolygus rubrus* (Carvalho, 1987) and *M. viridulus* Yasunaga, 1992: ♀ genitalia (FC n° 3851 and n° 230 respectively); 92-93 – Parieto-vaginal rings; 94-95 – Posterior wall [scale bar 0.1 mm, except fig. 92 scale bar 0.5 mm].

References: *Gorna pilosa* Poppius, 1914a: 131-132, as new species; Carvalho 1959: 96, catalogue; Schuh 1995: 760, catalogue; Schuh 2002-2013, online catalogue.

Redescription: *External anatomy*: See generic redescription. Measurements in mm (holotype female): Total length: about 5.46; width: 2.60; medial length of pronotum: 1.19; posterior width of pronotum: 2.21; vertex width: 0.41; eyes width: 0.40; length of antennal segments: I: 0.67; II: 2.24; III: broken; IV: broken; medial length of scutellum: 1.06; basal width of scutellum: 1.02; length of cuneus: 1.10; width of cuneus: 0.82.

Sexual dimorphism: Male unknown.

Female genitalia: unknown.

Discussion: *D. intonsus* was described by Poppius (1914a: 131-132) on the female holotype from Malabar gebirge, Java, Indonesia alone. The species was not recorded since its original description. *D. intonsus* could be separated from *D. pilosus* by the frons and vertex slightly curved medially with several dark patches or with a longitudinal dark brown stripe (absent in *D. pilosus*) and by the lighter dorsal colouration. The scutellum and clavii are yellow brown to red in *D. intonsus*, dark brown in *D. pilosus* (except the lighter, yellowish apex of clavii in both species), the dark brown to black patches on coria are more reduced in *D. intonsus* than in *D. pilosus*. In light of this discussion and considering the infraspecific variability as almost unknown (primarily due to absence of additional specimens from Indonesia), we maintain two nominal species in the genus *Diognetus*. The Philippine specimens seem relatively similar to *D. intonsus* but could belong to a new species. They show minor differences with Sri Lankan specimens i.e. the larger anterior dark-brown to black sub-basal transverse fascia of pronotum and the more rounded shape of the male. However, we refrain to describe it now. The genus should be reviewed on the basis of additional material and the included species accurately redefined before any description of new taxa. Specimens are available in BMNH, AMNH and USNM collections.

***Eurystylus* Stål, 1871**

References: *Eurystylus* Stål, 1871: 671, as new genus; Zheng & Chen 1991: 197-203, revision of Chinese fauna; Schuh 1995: 766-769, catalogue; Stonedahl 1995: 135-156, review of Afrotropical species, new species, new synonymies, new combinations; Kerzhner & Josifov 1999: 99-100, catalogue; Zheng et al. 2005: 271-277, 702, redescription, in fauna; Schuh 2002-2013, online catalogue.

Type species: *Eurystylus costalis* Stål, 1871, by monotypy.

***Eurystylus costalis* Stål, 1871** (Figs 86-88, 90-91, plate 14 fig. 11)

Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 05.v.1995, on *Tristiropsis acutangula* (Sapindaceae), fogging, leg. O. Missa (FC n° 4014a); 1♂, 3♀, 1?: Baiteta, 14.vii.1995, on *Neonauclea* sp. (Rubiaceae), leg. O. Missa, fogging (FC n° 4840-4842, 5067-5068); 1♂: Baiteta, 12.iv.1996, host unknown, leg. O. Missa, light trap (FC n° 4843), 2♀: Baiteta, iv.1996, host unidentified, leg. O. Missa, light trap (FC n° 4015a-4016a).

References: *Eurystylus costalis* Stål, 1871: 671, as new species; Zheng & Chen 1991: 198, redescription; Schuh 1995: 767, catalogue; Zheng et al. 2005: 273, 275-276, redescription, in fauna; Schuh 2002-2013, online catalogue.

Addition to the original description: Because only the phallic structures of *E. costalis* were shortly described in the literature, we give herafter a more detailed description of genitalia of both sexes of this species.

Description of male genitalia: Left paramere (Fig. 86) sickle-like, sensory lobe (sl) large, apex of primary apophysis (ApAp) sharp and accessory lobe (La) rounded. Right paramere (Fig. 87) very typical: inner margin translucent, including sensory and secondary lobes, primary apophysis with sharp apex and pointed, curved, accessory lobe. Endophallus (Fig. 88) with three main lobes (L1-3) and small anterior lobe (L4), ACH divided in basal and apical processes, apical process curved and laterally toothed. Ductus seminis (Ds) and secondary gonopore (G2) wide. Theca (th) wide.

Description of female genitalia: Anterior sac or seminal depository large, subdivided into two main parts, margins of glands obvious. Parieto-vaginal rings (Fig. 90) relatively small, rounded, devoid of sclerite. Dorso-labiate plate wide, margins sclerotised (reinforcement: Fig. 90, arrow). Ventral labiates plate complex. Dorsal wall membranous. Posterior wall (Fig. 91) classical. Inter-ramal sclerites or A structures (As) wide, with sclerotised dorso-lateral plates. Inter-ramal lobes or E structures (Es) rounded, pilose. Lateral lobes or H structures (Hs) present. Dorsal structure (Ds) subdivided in two parts (Cha and plt). Median process or foot (Ft) wide.

Discussion: Stål (1871: 671) described his new genus to accommodate his new species *E. costalis* from Philippines Islands. Subsequently, numerous species were described from tropical Africa and Asia, mainly by Poppius (1911a; 1912c; 1915a & b) and Distant (1879; 1904c). Stonedahl (1995) reviewed the Afrotropical species, and synonymized a lot of old nomina. Zheng & Chen (1991) and Zheng et al. (2005) redescribed the species from China, Yasunaga et al. (2001) the species from Japan. However, the genus *Eurystylus* remains a difficult group, because the high intraspecific variability and the lack of a world scale revision, including comparative description of male and female genitalia. The specimens from Baiteta Forest could belong to *E. costalis* according to Poppius (1911a) and Zheng et al. (2005) partial keys. These specimens can be easily separated from a majority of the 19 species known from Oriental and Australian regions by their external anatomy, particularly their dark brown to black dorsal colour, their total length, the length of the first antennal segment and the shape of the second antennal segment. Only two species known from Oriental regions were not excluded on the basis of those character states: *E. costalis* and *E. montanus* Poppius, 1915a. The differences between both species are unclear to us. Phallic structures of Baiteta Forest's male specimens (Figs 88-89) are similar to the structures drawn by Zheng & Chen (1991: 198, fig. 4) and Zheng et al. (2005: 273, fig. 79g) for *E. costalis*; however the ACH sensu Chérot (2002) is slightly longer, curved and laterally toothed (all character states difficult to appreciate except for some orientations).

Apparently, *E. costalis* was described by Stål (1871: 671) on the basis of only one female specimen from Jolo, Philippines Islands. Additional specimens were recorded subsequently from numerous other countries including China (Zheng & Chen 1991; Zheng et al. 2005), Indonesia (Mantawai Archipelago and Sumatra, cf. Poppius 1911a; Java, cf. Carvalho 1959) and the United States of America (Mariana Islands, Guam and Pagan Islands cf. Carvalho 1956). The species was unknown from Papua New Guinea.

Hosts: The specimens of *Eurystylus costalis* Stål, 1871 of Baiteta Forest were recorded in four independent collection events, by fogging and light trap, on two different identified host plants: *Neonauclea* sp. (Rubiaceae) and *Tristriropsis actuangula* (Sapindaceae).

Eurystylus sp. near *minutus* Poppius, 1911a

Additional material 1♂ ISNB: Papua New Guinea: Madang: Baiteta, 01.v.1996, host unknown, leg. O. Missa, fogging (FC n° 5069).

Discussion: The sole available specimen of this small species, recorded by fogging, was teneral and consequently difficult to compare with the other Baiteta Forest's *Eurystylus* specimens. However, the parameres are relatively different, particularly the right paramere (more classical, devoid of a pointed, curved, accessory lobe).

Hosts: unknown.

Macrolygus Yasunaga, 1992

References: Macrolygus Yasunaga, 1992b: 48-49, as new genus; Schuh 1995: 830, catalogue; Kerzhner & Josifov in Aukema & Rieger 1999: 123, catalogue; Yasunaga et al. 2001: 71, 248-249, redescription in fauna; Zheng et al. 2005: 371-372, 689, 708, redescription, in fauna; Schuh 2002-2013, online catalogue.

Type species: *Macrolygus viridulus* Yasunaga, 1992b, by original designation and monotypy.

Macrolygus rubrus (Carvalho, 1987) (Figs 92-94, plate 13 figs 6-7)

Paratype ♂ MNRJ, ex BPBM: Papua New Guinea: Madang: "Simbai, Bismarck Range, 1900m., 29.v.1966, *J. L. Gressitt*" (FC n° 4259).

Additional material 1♂ & 1♀ ISNB: Papua New Guinea: Eastern Highlands: Bismarck Range, Iwam Pass, 12.v.1988, host unknown, leg. J. Van Stalle (FC n°s 3850-3851).

Other taxa examined for comparison (Plate 13 figs 8-10): *Gigantomiris jupiter* Miyamoto, Yasunaga, 1988. Japan: Honshu: 1♂ ex HUES, CFC: Okayama Pref., Mt. Kenashi, Shinjô vil., 30.v.1994. (FC n° 219); 1♀ ex HUES, CFC, leg. T. Yasunaga: Hiroshima (Prefecture), Chöjabaru, Geihoku (town), 10-11.vii.1994, light trap K. Yoshizawa leg. (FC n° 218). *Macrolygus viridulus* Yasunaga, 1992. Japan: Shikoku: 1♀ HUES: Kochi Pref(ecture), Monobe village (Kagami city), 29.viii.1993., Ex. *C. harringtonia*, *Ali & Takai* leg. (FC n° 230); Honshu: 1♂ HUES: Wakayama Pref(ecture), Hatenashi (Mountain Range), 13.vi.1996, S. Gotoh leg. (FC n° 1262) [specimens identified by T. Yasunaga]; *Miyamotoa rubicunda* Yasunaga, 1990: Japan: Ryukyus: Amami-Oshima Island: Paratype ♀ HUES: Mt. Yuwan-Dake, Uken-Son (village), B4, 03.iv.1989, Y. Takematsu leg. (FC n° 223); Paratype ♂ HUES: Mt. Yuwan-dake, 01.v.1986, Y. Notsu (FC n° 222).

References: *Waucoris rubrus*: Carvalho 1987b: 161-162, 164, as new species: description, MG; Schuh 1995: 972, catalogue; Schuh 2002-2013, online catalogue. *Macrolygus rubrus*: Chérot & Malipatil (2016: 190, 194-195), new combination.

Addition to the original description: The female genitalia of *Macrolygus* spp. were still unknown. We provide hereafter the first description of those structures for *M. rubrus* and *M. viridulus*.

Female genitalia of *M. rubrus*. Seminal depository or anterior sac (As) elongate, membranous, lacking sclerite or ring. Parieto-vaginal rings (Fig. 92, Ap) large, totally separated; anterior margin slightly convex, outer margin convex, posterior margin almost straight, inner margins short, convex. Dorso-labiate and ventro-labiate plates unsclerotised. Dorsal wall membranous (arrow). Posterior wall (Fig. 94) elongate. Inter-ramal sclerites or A structures (As) with slightly concave dorsal margins and convex ventral and lateral margins. B structure (Bs) complex. Inter-ramal lobes or E structures (Es) rounded, relatively small, obviously separated from the B structure. Lateral plates marked. Lateral lobes or H structures elongate.

Female genitalia of *M. viridulus*. Seminal depository unknown. Parieto-vaginal rings (Fig. 93, Ap) large, totally separated; anterior margin slightly convex, outer margin convex, posterior margin almost straight, inner margins short, convex. Dorso-labiate and ventro-labiate plates unsclerotised. Posterior wall (Fig. 95) elongate. Inter-ramal sclerites or A structures (As) with concave dorsal margins and strongly convex ventral and lateral margins. B structure (Bs) reduced, devoid of posterior plate and median process (or foot). Base (or dorsal structure, Ds) subdivided in two parts. Inter-ramal lobes or E structures (Es) elongate, slightly separated from the median process. Lateral plates and lateral lobes or H structures absent.

Discussion: As already pointed out, Carvalho (1987b: 156-157) very briefly described his new genus *Waucoris* to accommodate all species described by Poppius (1915a) under the name *Adelphocoris* Reuter, 1896 from the Indo-Australian region. He compares his new genus exclusively to Reuter's genus and separates it by the absence of the phallic comb and two other minor characters (colouration of tibial spines and shape of larger areola of membrane). On the basis of these characters alone, he classifies his new species *W. rubrus* Carvalho, 1987 – described on a series of 28 type specimens from several localities of New Guinea – in the genus *Waucoris*. However, "*W.*" *rubrus* Carvalho, 1987 is obviously neither congeneric with *Waucoris keyensis* (Poppius, 1915a), the type species of the genus, nor with the related species *Waucoris papuanus* (Poppius, 1915a) and *Waucoris wauensis* Carvalho, 1987b. "*W.*" *rubrus* Carvalho, 1987 is even lacking one of the main characters of the *Adelphocoris* – *Creontiades* Distant, 1883 – *Megacoelum* Fieber, 1858 complex of genera (cf. Chérot et al. 1999; Chérot & Malipatil 2016), of which the true *Waucoris* are members. The two last antennal segments of "*W.*" *rubrus* are narrower than the second (versus almost of the same width in *Adelphocoris* – *Creontiades* – *Megacoelum* complex of genera).

On the other hand, "*W.*" *rubrus* agrees with original description of *Macrolygus* by Yasunaga (1992b: 48-49) in virtually all major characters, i.e.:

1 The elongate (more in the males than in the female), relatively wide (more in the female)[12] body, covered with small, recumbent, fine, white pubescence;
2 The eyes contiguous to the narrow pronotal collar;
3 The vertex weakly sulcate longitudinally (the sulcus almost absent in female), its base slightly marginate laterally;
4 The first antennal segment slightly curved, relatively stout and short in the female, about as long as width of head, as on Yasunaga's (op. cit.: 49) fig. 3 (a female), linear, longer and narrower in the male (as in Carvalho's fig. 20, 1987, p. 162, a male);
5 The second antennal segment almost linear, the following segments slender;
6 The hemelytra shallowly punctate (as the pronotum and scutellum), uniformly covered by the white, recumbent pubescence and
7 The fore tibia widened distally.

If the male genitalia of "*W.*" *rubrus*, and particularly the endophallus, are more complex than those of *Macrolygus viridulus* Yasunaga, 1992, two important characters are similar: the secondary gonopore is proportionally very wide and provide with a gonoporal process (cf. Carvalho 1987b: 162, fig. 21 and Yasunaga 1992b: 50, fig. 4D).

"*W.*" *rubrus* cannot be easily classified in any of the other Mirini genera of the world with a narrow and shallow dorsal punctation. "*W.*" *rubrus* is neither member of *Adelphocoris* - *Creontiades* - *Megacoelum* complex of genera, nor member of *Phytocoris* Fallén, 1814 complex of genera (cf. Stonedahl 1988a; Chérot 1997b) or of *Calocoris* Fieber, 1858 complex of genera (sensu Rosenzweig 1997). From the first, "*W.*" *rubrus* is separated by the antennal structure, from the second, "*W.*" *rubrus* is separated by the classical metafemoral structure

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[12] Yasunaga's comparison between *Macrolygus* and *Lygocoris* (Yasunaga, 1992b: 49) is difficult to understand when the specimen analysed is a female, because *M. viridulus* Yasunaga, 1992 female is a large bug. However, the habitus of several males are more *Lygocoris*-like.

(not *Phytocoris*-like i.e. not flattened and not basally sulcate) and from the third, by the pilosity and male genitalia. According to Rosenzweig (op. cit.: 140), the "*Calocoris* complex", maybe a polyphyletic group, including five "sub-" complexes (also termed "complex" by him) [13]:

1 The *Closterotomus* Fieber, 1858 complex (characterised by a mixed pubescence and an abundant vesical armament);
2 The *Polymerias* Yasunaga, 1997 complex (characterised by the silky, silvery recumbent dorsal pubescence and by the totally black colouration);
3 The *Thiomiris* Rosenzweig, 1997 complex (characterised by the golden, fine pubescence and by the totally yellow colouration);
4 The *Calocoris* complex *stricto*-sensu (characterised by the endophallus with 6 lobes lacking sclerites but provided with denticles fields), and
5 The *Rhabdomiris* Wagner, 1968 complex (characterised mainly by the colouration of the veins – margined with black – and the large ACH).

"*W.*" *rubrus* does not fit any of these groups.

Due to its colouration and large size, "*W.*" *rubrus* could be compared to *Gigantomiris* Miyamoto, Yasunaga, 1988 and *Miyamotoa* Yasunaga, 1990. From *Miyamotoa*, "*W.*" *rubrus* can be separated by the shape of second antennal segment (linear in "*W.*" *rubrus*, apically club-like in *Miyamotoa*) and by the hemelytral pubescence (simple, fine, white, recumbent in "*W.*" *rubrus*, double, the first silky, recumbent, fine, white and the second stiff, suberect, black in *Miyamotoa*). From *Gigantomiris*, "*W.*" *rubrus* can be separated by the venation (the median vein is reduced in *Gigantomiris*) and by the hemelytral pubescence (black, sparse, suberect in *Gigantomiris*). The species of African genus *Pleurochilophorus* Reuter, 1905 possess a gonoporal sclerite. However, the shape of this sclerite is totally different from the comb of "*W.*" *rubrus* or from the tiny ribbon-like sclerites of *M. viridulus*. Moreover, *Pleurochilophorus* could be classified in *Adelphocoris* – *Creontiades* – *Megacoelum* complex by the width of the two last antennal segments, by the large sulcus of vertex etc.

Consequently, Chérot & Malipatil (2016) suggested the new combination *Macrolygus rubrus* (Carvalho, 1987b). However, T. Yasunaga (pers. comm. to the first author) considers that the similarities between *M. viridulus* and "*W.*" *rubrus* could be just homoplasy and the genus *Macrolygus* as east Palaearctic element, living exclusively on several conifers, including *Cephalotaxus*. We are reluctant to describe a new genus for *W. rubrus* in the present state of our knowledge and maintain it in *Macrolygus* until additional clarifications of Mirini classification and phylogeny.

Obviously, the three species presently classified in the genus *Macrolygus* can be easily separated by the hemelytral colouration and by the male genitalia. We provide hereafter a key of these species.

Key to species of *Macrolygus* Yasunaga, 1992

1 Hemelytral colouration red, head, antennae, legs, membrane and apex of cunei, dark brown to black. Endophallus complex, including one ACH, one comb-like gonoporal process and one "lobe sclerite" sensu Kelton (1959) .... *M. rubrus* (Carvalho, 1987)
– Hemelytral colouration and endophallus different .. 2
2 Hemelytral colouration green or yellow on dried faded specimens in the collections. Species dorsally green except for the brown membrane, and the exocoria, some parts of the legs and some parts of antennal segments, which are yellow. Endophallus with one very small and elongate gonoporal sclerite .... *M. viridulus* Yasunaga, 1992
– Hemelytral colouration green to red-brown. Endophallus with an ACH, devoid of gonoporal sclerite .... *M. torreyae* Zheng in Zheng et Lu, 2002

Hosts: Unknown. *M. viridulus* was recorded from *Chamaecyparis harringtonia* (Cupressaceae, unpublished data) and was sometimes attracted to the light (Yasunaga 1992b). *M. torreyae* was recorded from *Torreya grandis* (Taxaceae) (Zheng & Lu 2002).

Note: this species was not recorded from Baiteta Forest.

Prolygus Carvalho, 1987

References: *Prolygus* Carvalho, 1987c: 137-138, as new genus; Schuh 1995: 941, catalogue; Kerzhner & Josifov 1999: 172-173, catalogue; Zheng et al. 2005: 560-565, redescription, in fauna; Schuh 2002-2013, online catalogue.

Type species: *Lygus papuanus* Poppius, 1914b, by original designation.

Prolygus ehannoi sp. nov. (Figs 96-109, plate 14 figs 1-3)

Holotype ♂ ISNB: Papua New Guinea: Madang: "*Prolygus ehannoi* sp. nov. FC n° 4021. Det. F. Chérot, 2011" / "Holotype *Prolygus ehannoi* Chérot, Gorczyca,

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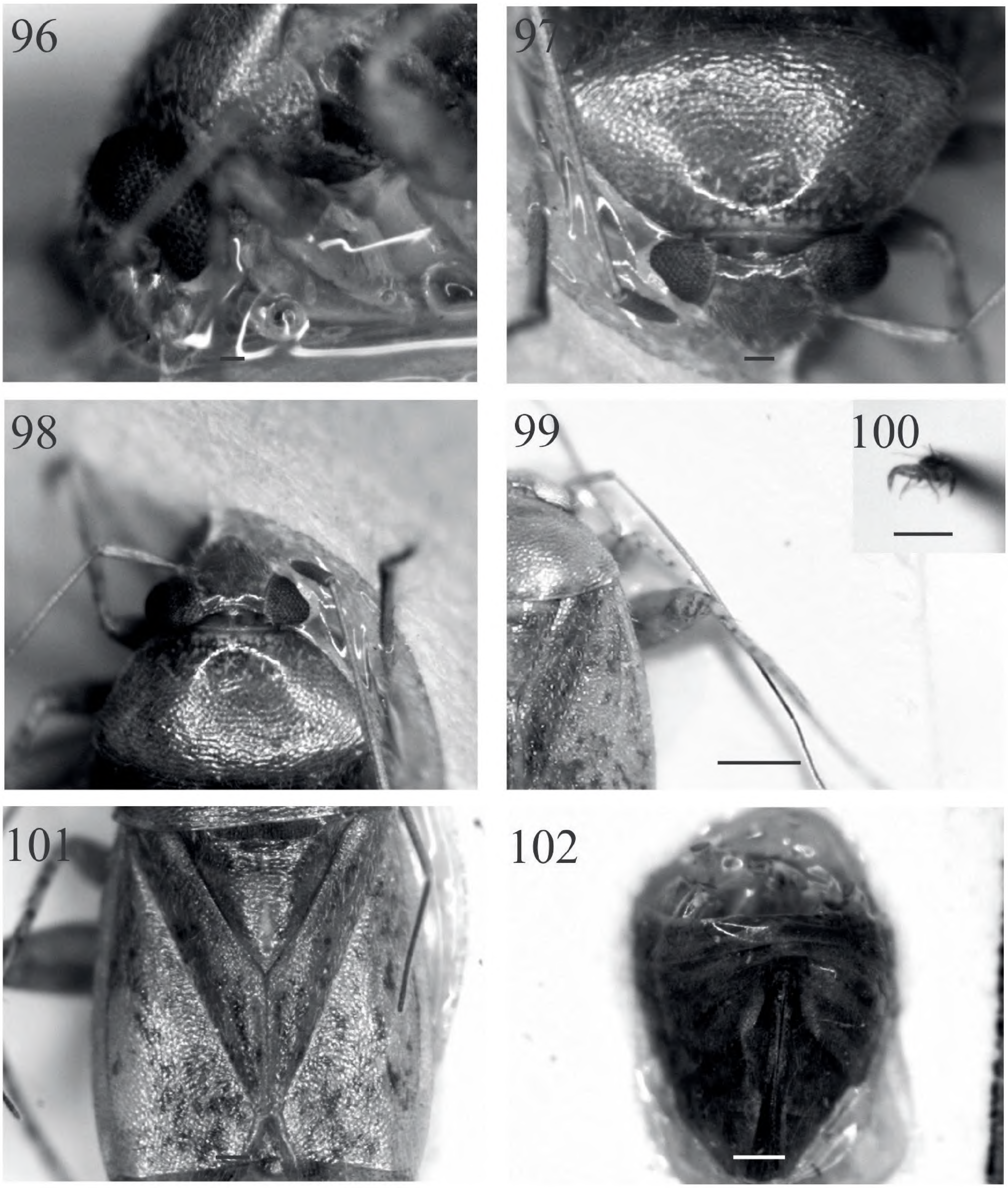
[13] Similar subdivisions are suggested in Rosenzweig's (2001) more general classification of Palaeartic genera of "Miraria" and challenged by Chérot (2002).

Schwartz & Demol" / "Coll. I.R.Sc.N.B., Canopy Mission Papua New Guinea, (Madang prov.): Baiteta 03.vi.1996, light trap AR16 [the code AR16 corresponds to *Celtis philippinensis* (Ulmaceae)], leg. O. Missa" (FC n° 4021). Paratypes ISNB: 1♀: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 4027); 1♂, 3♀: Baiteta, 26.iii.1993, O. Missa leg., on *Pometia pinnata*, light trap (FC n°s 4015-4017, 4019); 1♂: Baiteta, 20.v.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n° 4014); 2♂ & 1♀: Baiteta, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n°s 4018, 4022, 4025); 11♂: Baiteta, 10.vi.1996, O. Missa leg., on *Buchaniana heterophylla* (Anacardiaceae), light

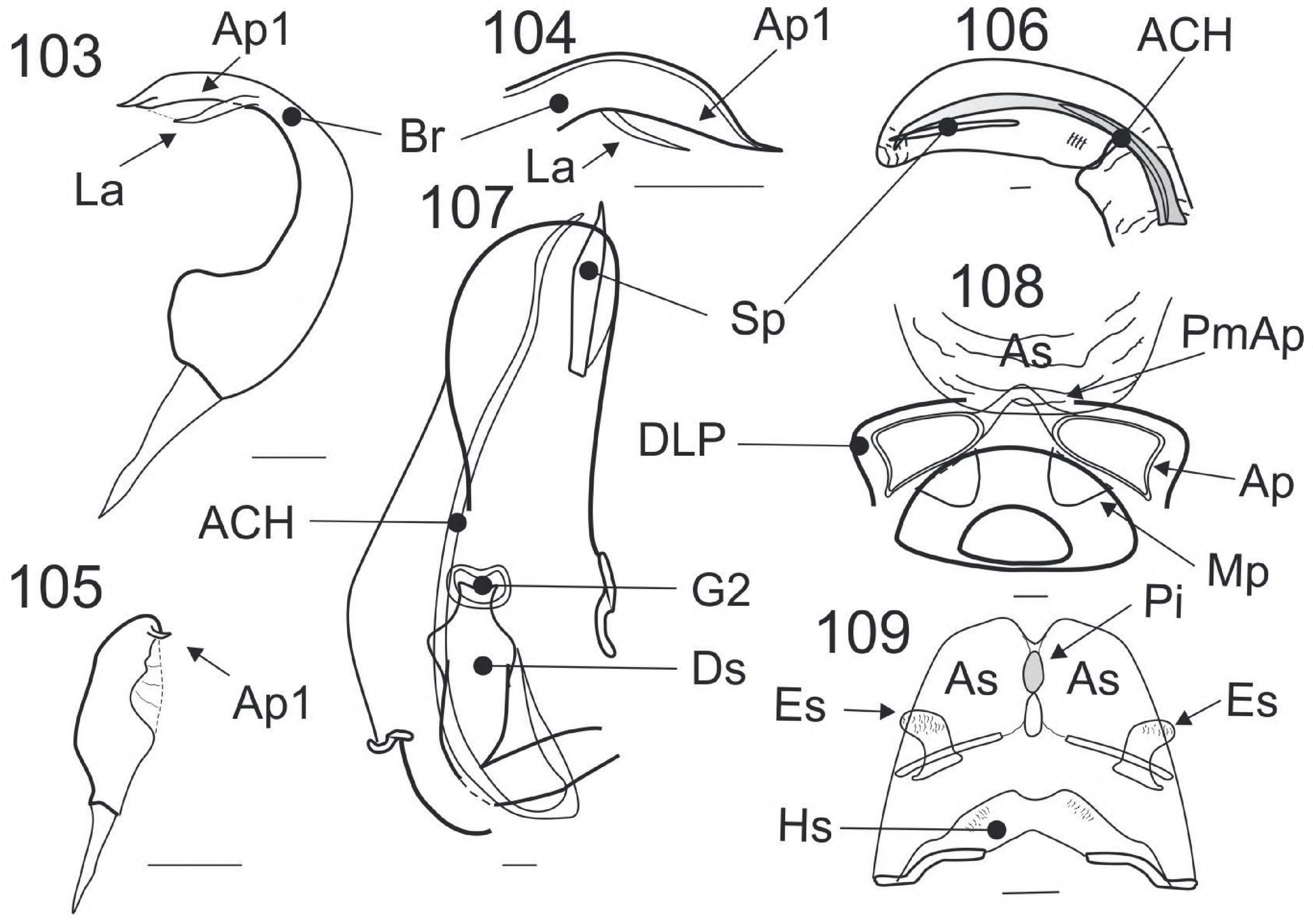


Figures 96-102. *Prolygus ehannoi* sp. nov., female paratype FC n°4027. 96 – Head, lateral view; 97 – Head, dorsal view; 98 – Pronotal surface; 99 – Metafemur; 100 – Claw; 101 – Clavii and coria; 102 – Abdomen, ventral view [scale bar 0.1 mm, except fig. 100 scale bar 0.05 mm and fig. 102 scale bar 0.5 mm].

trap (FC n° 4020); 1♂: Baiteta, 01.vii.1996, O. Missa leg., on *Buchaniana heterophylla* (Anacardiaceae), light trap (FC n° 4023).

Derivatio nominis: The new species is dedicated to our French colleague the late Bernard Ehanno for his accurate and very detailed works about the genus *Dimorphocoris* (Halticini) and about female genitalia of Miridae.

Description: Body rounded, relatively wide, stout, total length in female: 3.58-3.92 (n =5), total length in males: 3.63-3.77 (n = 6); maximal width of hemelytra (after apex of clavus) in males: 1.67-1.86 (n = 6), maximal width of hemelytra (after apex of clavus) in females: 1.76-1.91 (n = 5). Dorsal colouration in collection yellow green to light brown with numerous red brown patches on hemelytra (Fig. 101, plate 14 figs 1-3). Head. Clypeus yellow, not covered by frons in dorsal view, with short suberect setae. Maxillary and mandibular plates uncarinate, lacking tubercle, yellow brown with red to pinkish spots. Frons yellow, slightly rounded, with very short, recumbent or suberect, white setae, without sericeous or woolly setae (Fig. 98). Eyes glabrous, silvery, occupying about 75 percent of height of head in lateral view. Total width of diatone in males: 0.88-1.00 (n = 6), in females: 0.88-0.93 (n = 5), width of vertex in males: 0.29-0.34 (n = 6), in females: 0.29-0.39 (n = 5). Vertex obviously carinate, slightly depressed medially. Antenna elongate. First and second segments yellow, third and fourth black, except for a very narrow yellow ring. Lengths of joints in males: 0.37-0.49 (n = 6), 1.37-1.47 (n = 6), 0.64-0.74 (n = 6), 0.54-0.61 (n = 4). Lengths of joints in females: 0.37-0.42 (n = 5), 1.30-1.52 (n = 5), 0.71-0.78 (n = 5), 0.54-0.61 (n = 5). Labium yellow, with red lines, extending slightly beyond the metacoxa. Thorax. Pronotum (Fig. 98). Total length in males (collar included): 0.75-0.87 (n = 6). Total length in females (collar included): 0.77-0.83 (n = 5). Posterior width in males: 1.42-1.52 (n = 6). Posterior width in females: 1.37-1.62 (n = 5). Collar narrow, yellow brownish. Callosities reduced, hardly visible, separated medially and from the lateral margins of disk. Pronotal disk yellow brown, punctation relatively narrow but deep, dense. Mesoscutum sometimes totally covered, frequently at least partially uncovered. Scutellum



Figures 103-109. *Prolygus ehannoi* sp. nov., genitalia of both sexes. 103 – Left paramere; 104 – Primary apophysis of the left parameres, ventral view; 105 – Right parameres; 106-107 – Endophallus, ♂ paratype FC n° 4018; 108 – Parieto-vaginal rings, dorsal view; 109 – Posterior wall, ♀ paratype FC n° 4019 [scale bar 0.1 mm].

(Fig. 101). Length in males (mesoscutum excluded): 0.54-0.64 (n = 6), length in females (mesoscutum excluded): 0.51-0.80 (n = 5). Basal width in males: 0.47-0.81 (n = 6), basal width in females: 0.49-0.76. Surface yellow brown, sometimes with red brown patches, striate; pilosity white, adpressed to suberect; punctation narrow and deep, the lateral margins straight. Legs (Fig. 99). Femora yellow-brown, with several red to pinkish rings apically. Metatibia with suberect, yellowish setae and yellowish to brownish spines, arising from wide dark red to brown point. Tarsi yellow, with base and apex orange-brown. Claws (Fig. 100). Hemelytra (Fig. 101). Clavus and corium opaque, yellow-brown, with dense, shallow and narrow punctation and numerous red brown to brown patches, particularly on the endocorium. Pilosity adpressed, white, without sericeous or woolly setae. Cuneus yellow-brown, apex with black. Length of cuneus in males: 0.64-0.76 (n = 6), length of cuneus in females: 0.60-0.69 (n = 5). Width of cuneus in males: 0.39-0.56 (n = 6), width of cuneus in females: 0.39-0.54 (n = 5). Membrane glassy, brownish with yellowish areas, veins yellowish. Abdomen (Fig. 102): yellowish with long white setae and red to pinkish patches.

Male genitalia: Left paramere (Figs 103-104) sickle-like with wide sensory lobe, pointed primary apophysis (Ap1) slightly curved apically and acute accessory lobe (LA). Right paramere (Fig. 105) stout with short, curved, primary apophysis. Endophallus (Figs 106-107) with large secondary gonopore (Fig. 107, G2), elongate, convoluted ACH and elongate apical spiculum (Sp).

Female genitalia: Anterior sac (SA) classical, apparently lacking sclerite or glandular ring. Dorsal wall (Fig. 108) complex, including large posterior sac. Pair of subtriangular toothed medial processes (MP) projecting into genitalic chamber, apparently arising from reinforced part of lateral roof of chamber, partially hidden in dorsal view by dorsal wall. Lateral oviducts totally separated, short and relatively narrow. Parieto-vaginal rings (Fig. 108) large, anterior and latero-inner margins slightly convex, posterior and latero-outer margins sigmoid. Rings separated by distance slightly greater than maximal length, linked by curved medial plate (PmAp). Dorso-labiate plate slightly sclerotised. Posterior wall (Fig. 109) large. Inter-ramal sclerites or A structures (AS) with obviously convex dorsal margins and lateral margins and slightly concave ventral margins. Inter-ramal lobes from E structures (ES) elongate, *Apolygus*-like, arising from reinforcement – or lateral plate – of inter-ramal sclerite ventral margin, obviously separated of B structure. Membranous area separates interramal and lateral lobes. Lateral lobes or H structures (HS) wide, elongate and convoluted.

Discussion: The generic placement of these typical bugs belonging to *Lygus* complex is problematic. Numerous genera of the complex remain poorly defined. Carvalho (1987c: 138) briefly described the genus *Prolygus*, based mainly on not diagnostic character states and compars it only to few genera of the complex. As pointed out by Schwartz & Kerzhner (1997: 255), character states of the left paramere and sclerotised rings "do not allow unequivocal generic placement". *Prolygus* should be carefully reviewed. However, we were not able to classify our specimens in another genus of the complex. The measurements, the head structure, the dorsal colouration and pilosity, the spines of metatibia, yellow to red, arising from wide dark point (as it is the case in several Papuan *Prolygus*, *contra* Yasunaga et al. 2002 key) and the male genitalia seem to exclude their membership to the numerous other genera of the complex. The very typical female genitalia seem species-specific. Although structurally similar to the structures of *P. polhemusorum* sp. nov., the female genitalia of *P. ehannoi* sp. nov. differs by the shape of parieto-vaginal rings, by the shape of the sclerites of the dorsal wall, by the shape of the inter-ramal sclerites and by the shape of the lateral lobes of the posterior wall etc. The new species is easily separated from the Papuan *Prolygus* species by its dorsal colouration (yellow green with numerous red brown patches) and by the male and female genitalia.

Hosts: In Baiteta Forest, 12 specimens of *P. ehannoi* were recorded in 7 independent collection events, only by light traps, from *Buchaniana heterophylla* (Anacardiaceae), *Celtis philippinensis* (Ulmaceae), *Chisocheton ceramicus* (Meliaceae), *Dracontomelum dao* (Anacardiaceae) and *Pometia pinnata* (Sapindaceae).

Prolygus erimensis **(Poppius, 1914b)** (Figs 110-116, 138-139, plate 17 figs 1-2)

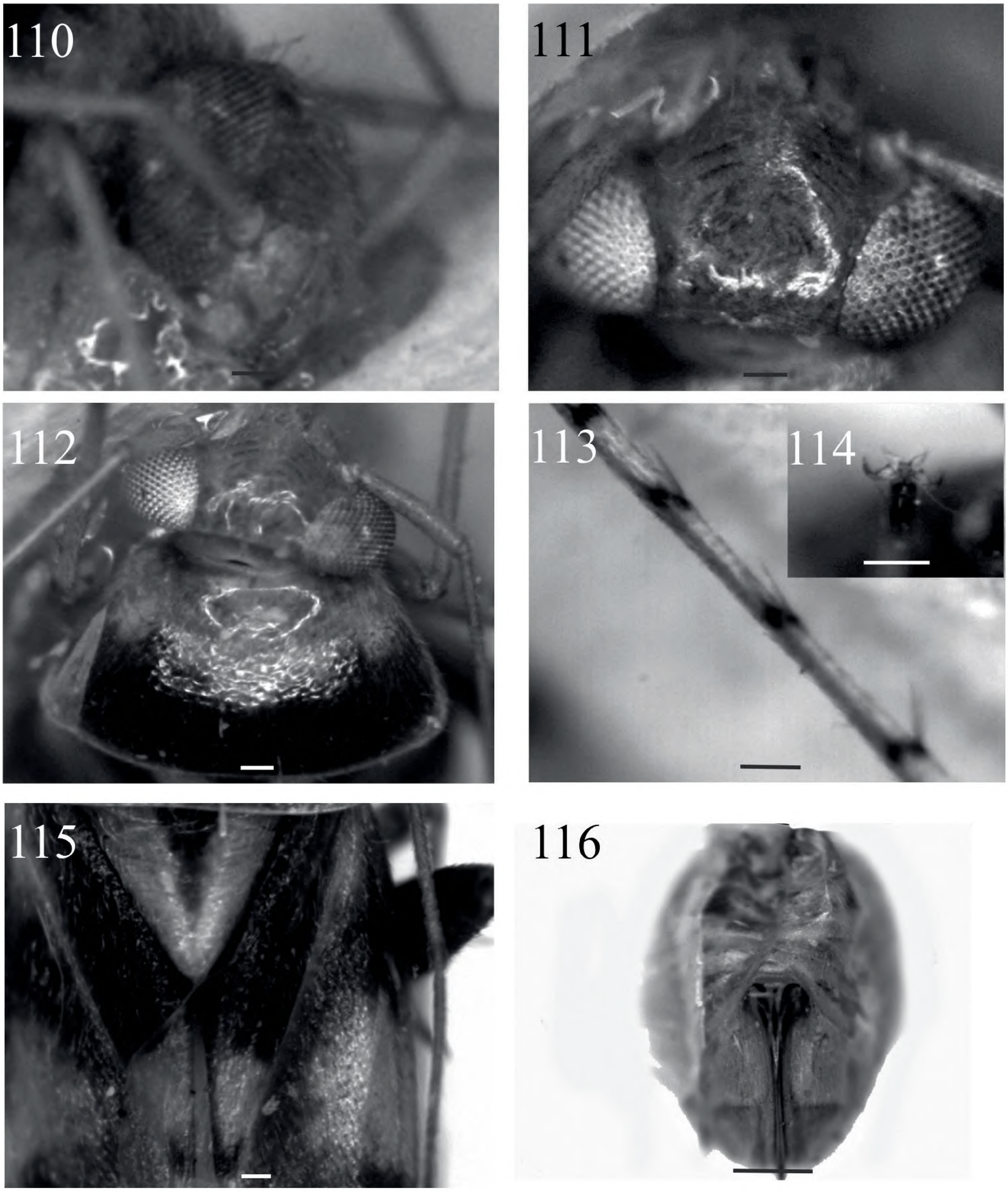
Lectotype ♀ HNHM, designation by Carvalho, 1987c: 142: Papua New Guinea: Madang: "Astrolabe Bai, Erima, 1898, Biro" (FC n° 5064) (HNHM).

Additional material 1♀ ISNB: Papua New Guinea: Madang: Baiteta, 08.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n° 4068).

References: *Lygus erimensis* Poppius, 1914b: 370, as new species; *Prolygus erimensis*: Carvalho

1987c: 139, 142, redescription, habitus, new combination; Schuh 1995: 941, catalogue; Schuh 2002-2013, online catalogue.

Addition to the original description: The female genitalia of *Prolygus erimensis* were unknown still. Unfortunately, the abdomen of the Baiteta specimen is in poor condition and we can just provide some reduced information about the genitalia. Dorsal sac and posterior wall unknown. Lateral oviducts wide and particularly elongate. Dorsal labiate plate slightly sclerotised on margins, posterior margin curved. Parieto-vaginal rings (Fig. 138) reduced, their shape classical: anterior margin convex, posterior margin almost straight. Posterior



Figures 110-116. *Prolygus erimensis* (Poppius, 1914b), female FC n° 4068; 110 – Head, lateral view; 111 – ditto, dorsal view; 112 – Pronotal surface; 113 – Metatibia; 114 – Pretarsus and claw; 115 – Clavii and anterior parts of coria; 116 – Abdomen, ventral view [scale bar 0.1 mm, except fig. 116 scale bar 0.5 mm].

wall (Fig. 139) with relatively complex B structure and small E structures. H structure absent.

Discussion: *Prolygus erimensis* (Poppius, 1914) was described on the basis of two female specimens: the lectotype from Astrolabe Bai, Madang Province, Papua New Guinea and a paralectotype from Sattelberg, Huon Gulf, Morobe Province, Papua New Guinea. Carvalho (1987c: 142) mentions additional specimens, all females, from Papua Barat, Indonesia (Warris) and from Papua New Guinea (Kassam, 48 km E. of Kainantu, Eastern Highlands; Maprik, East Sepik and Goroka, Eastern Highlands).

Hosts: In Baiteta Forest, *P. erimensis* (Poppius, 1914) was recorded once, by light trap, on *Chisocheton ceramicus*.

***Prolygus* cf. *femoralis* Poppius, 1914b** (Figs 117-123, 140-144, pllate 17 fig. 3)

Additional material: Papua New Guinea: Madang: 2♀ ISNB: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n°s 4032, 5137); 1♀ ISNB: Baiteta, 19.iii.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n° 4034); 1♀ ISNB: Baiteta, 26.iii.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n° 4036); 1♂ & 4♀ ISNB: Baiteta, 20.v.1993, O. Missa leg., on *Pometia pinnata* (Sapindaceae), light trap (FC n°s 4035, 4040, 4044, 4047, 4050); 2♂ & 1♀ ISNB: Baiteta, 05.v.1995, O. Missa leg., on *Tristiropsis acutangula* (Sapindaceae), fogging (FC n°s 4030, 4041-4042); 1♀ ISNB: Baiteta, 1995, O. Missa leg., on *Celtis latifolia* (Ulmaceae) + *Planchonella* sp. (Sapotaceae), fogging (FC n° 4045); 1♂ ISNB: Baiteta, 09.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n° 4024); 1♀ ISNB: Baiteta, 09.iv.1996, O. Missa leg., on *Terminalia sepikana* (Combretaceae), light trap (FC n° 4037); 1? ISNB: Baiteta, 09.iv.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), light trap (FC n° 4033); 2♀ ISNB: Baiteta, 13.iv.1996, O. Missa leg., on *Dysoxylum arnoldianum* (Meliaceae) + *Homalium foetidum* (Flacourtiaceae), light trap (FC n° 4038-4039); 1? ISNB: Baiteta, 13.iv.1996, O. Missa leg., on *Celtis philippinensis* (Ulmaceae), fogging (FC n° 4052); 1♂ ISNB: Baiteta, 15.iv.1996, O. Missa leg., on *Terminalia sepikana* (Combretaceae) + *Piteleocarpus indicum* (Fabaceae), light trap (FC n° 4051); 3♀ ISNB: Baiteta, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Melicaceae), light trap (FC n°s 4028, 4043, 4046); 2♀ & 1? ISNB: Baiteta, ?.iv.1996, O. Missa leg., host unknown, light trap (FC n°s 4026, 4029, 4049).

References: *Lygus femoralis* Poppius, 1914b: 376-377, as new species; *Prolygus femoralis*: Carvalho 1987c: 142-143, redescription, MG, synonymy, new combination; Schuh 1995: 941, catalogue; Schuh 2002-2013, online catalogue.

Discussion: *Prolygus femoralis* was described by Poppius (1914b: 376-377) on the female holotype from Sattelberg, Huon Gulf alone. A few additional specimens from Morobe District and New Ireland, Papua New Guinea, were cited by Carvalho (1987c). Unfortunately, neither Poppius' nor Carvalho's descriptions are very detailed and the variability is almost unknown. We attribute, with some doubts, our specimens to *P. femoralis* on the basis of these descriptions. The specimens from Baiteta Forest are totally yellow green to olive green except the black or dark red apices of cunei and the dark two last segments of antenna, as described in the literature. Among Papuan *Prolygus*, just one species, *P. femoralis*, has such habitus. *P. stali* is unicolourous yellow, the cuneus included, and *P. concolor* was synonymized with *P. femoralis* by Carvalho (1987c: 143), a nomenclatorial act omitted by Schuh (1995, 2002-2013). However, the tibial spines of our specimens are light yellow to red, not dark brown (*contra* Carvalho and Poppius, op. cit.), the two last antennal segments are almost black (not respectively brown and dark brown) and the male genitalia are not totally identical with Carvalho's drawings (op. cit.: p. 143, figs 15-17). The significance of these differences is difficult to evaluate as the literature is difficult to interpret. For example, tibial spines are described by Poppius (1914b: 376) and Carvalho (1987c: 1942) as dark brown, but a specimen from Mindick compared with the type by Carvalho has yellow spines, the colour of the two first antennal segments are not described by both authors etc.

The taxonomic status of the nominal species *P. concolor* is definitely unsolvable. The female holotype being lost (Carvalho 1987c), Carvalho's subjective synonymy will remain unconfirmable. The selection of the holotype of *P. femoralis* as neotype of *P. concolor* could allow to fix the nomenclatorial status of *P. concolor*.

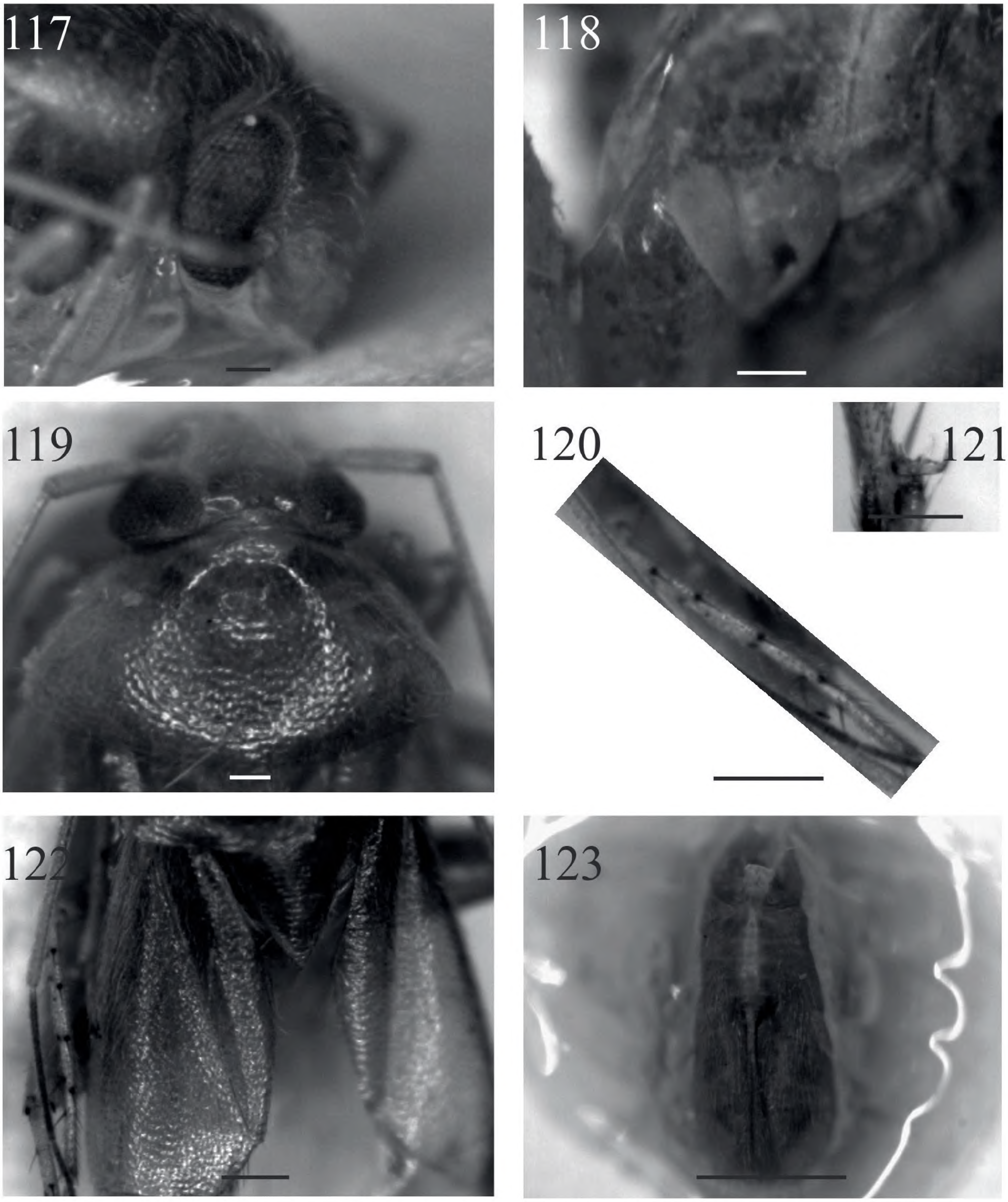
Hosts: In Baiteta Forest, 29 specimens of *P. femoralis* were recorded in 15 independent collection events, by light traps and by fogging, from *Celtis philippinensis* (Ulmaceae), *Chisocheton ceramicus* (Meliaceae), *Dracontomelum dao* (Anacardiaceae), *Pometia pinnata* (Sapindaceae), *Terminalia sepikana* (Combretaceae) and *Tristiropsis acutangula* (Sapindaceae).

***Prolygus polhemusorum* sp. nov.** (Figs 124-130, 145-150, plate 17 figs 4-5)

Holotype ♂ ISNB: Papua New Guinea: Madang: "*Prolygus polhemusorum* sp. nov. FC n°4053. Det. F. Chérot, 2011" / "Holotype *Prolygus polhemusorum* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I.R.Sc.N.B., Canopy Mission Papua New Guinea, (Madang prov.): Baiteta 10.v.1995, fogging AR5 [the code AR5 corresponds to *Chisocheton ceramicus* (Melicaceae)], leg. O. Missa" (FC n°s 4053).

Paratypes 5 specimens ISNB: 2♂ & 1♀: same data than the holotype (FC n°s 4031, 4048, 4054). 1?: Baiteta, 02.viii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 4052); 1♀: Baiteta, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Melicaceae), light trap (FC n° 5136a).

Derivatio nominis: The new species is dedicated to our colleagues the late John Polhemus and his



Figures 117-123. *Prolygus* cf. *femoralis* (Poppius, 1914b). 117 – Head, lateral view, ♀ FC n° 4032); 118 – Mesepimeron and metepisternum, ♀ FC n° 4044); 119 – Pronotal surface, ♀ FC n° 4032); 120 – Pretarsus and claw, ♀ FC n° 4032); 121 – Metatibia, ♀ FC n° 4032); 122 – Left clavus, ♀ FC n° 4032); 123 – Abdomen, ventral view, ♀ FC n° 4032) [scale bar 0.1 mm, except figs 121 and 123 scale bar 0.5 mm].

son Dan Polhemus (Bishop Museum, Honolulu, U.S.A.) for their fundamental contributions to the knowledge of the Gerromorpha of the World and Hawaiian Orthotylinae but also for the kind help they always provided to the authors.

Description: Body oblong, dull. Total length in males: 3.98-4.22, total length in female: 3.30. Maximal width of hemelytra (after apex of clavus) in males: 1.84-2.14; maximal width of hemelytra (after apex of clavus) in female: 1.53. Dorsal colouration green-brown (Plate 17 figs 4-5). Head. Clypeus yellow-brown, not covered by frons in dorsal view, almost glabrous. Tylus brown. Maxillary and mandibular plates uncarinate, devoid of tubercle (Fig. 124), yellow-brown. Frons yellow-brown to green-brown, slightly rounded, with very short, recumbent or suberect, white setae, without sericeous or woolly setae (Fig. 125). Eyes glabrous, silvery, occupying about height of head in lateral view. Total width of diatone in males: 0.97-1.07; total width of diatone in female: 1.41. Width of vertex in males: 0.24-0.28; width of vertex in female: 0.28. Vertex carinate, slightly depressed medially. Antenna elongate. First and second segments yellow-brown, second with basal ¼ lighter, yellow, third and fourth segments black. Lengths of joints in males: I: 0.59, II: 1.70-1.90, III: 0.95-1.15 (n = 2), IV: 0.51 (n = 1). Lengths of the joints in female: I: 0.40, II: 1.30, III: 0.65, IV: 0.59. Labium yellow, its apex dark brown, extending slightly beyond metacoxa. Thorax. Pronotum (Fig. 126) green-brown. Total length in males (collar included): 0.87-0.89; total length in female (collar included): 0.71. Posterior width in males: 1.50-1.66; posterior width in females: 1.38. Collar narrow, yellow brownish. Callosities reduced, hardly visible. Punctation of pronotal disk (Fig. 126) relatively wide. Mesoscutum totally covered. Scutellum (Fig. 127) green-brown. Length in males: 0.67-0.75; length in female: 0.59. Basal width in males: 0.67-0.87; basal width in female: 0.63. Legs. Femora and tibia yellowish. Metatibia yellowish, basally with wide red-brown patches. Metatibia with suberect, yellowish setae and yellowish to brownish spines. Tarsi yellow, with base and apex orange-brown. Hemelytra (Fig. 129) green-brown, opaque. Clavus green-brown, with dense, shallow but relatively wide punctation, partially hidden by pilosity. Corium green-brown, punctation less dense. Pilosity recumbent, white, relatively long. Cuneus yellowish. Length of cuneus in males: 0.63-0.75; length of cuneus in female: 0.59. Width of cuneus in males: 0.43 (n = 2); length of cuneus in female: 0.59. Membrane glassy, brownish, veins yellowish. Abdomen yellowish with long, white, setae.

Male genitalia: Left paramere (Fig. 145) sickle-like, sensory lobe (Ls) reduced, tertiary lobe (L3) elongate, with line of elongate setae, narrow arm with two setae tufts, primary apophysis sharp, slightly curved, secondary apophysis pointed (arrow). Right paramere (Fig. 146) stout, apophysis with two lobes. Endophallus (Figs 147-148) complex, including five different sclerites (S1-S5), wide *ductus-seminis* and classical secondary gonopore.

Female genitalia: Anterior sac classical, apparently devoid of sclerite or glandular ring. Dorsal wall complex (Fig. 149). Pair of toothed medial processes (MP) projecting into genitalic chamber, apparently arising from a reinforced part of lateral roof of chamber. Lateral oviducts totally separated, short and stout. Parieto-vaginal rings classical (Fig. 149), partially hidden in dorsal view by dorsal wall, anterior, posterior and latero-outer margins almost straight, latero-inner margins convex. Rings separated by a distance slightly greater than maximal length, linked by medial plate. Dorsal labiate plate slightly sclerotised. Posterior wall (Fig. 150) particularly complex. Dorsal structure in dorsal view apparently divided into two parts: hat (Cha) and plate (plt). Inter-ramal sclerites or A structures (As) with slightly concave dorsal and ventral margins and convex lateral margins. Inter-ramal lobes or E structures (ES) elongate, *Apolygus*-like, arising from reinforcement – or lateral plate – of inter-ramal sclerite dorsal margin, obviously separated from B structure. A membranous area with line of denticles between the interramal and the lateral lobes separates B structure in two parts. Lateral lobes or H structures (HS) wide, elongate and convoluted.

Discussion: *Prolygus polhemusorum* sp. nov. is relatively close to *P. ehannoi* sp. nov. and *P.* cf. *femoralis* by its habitus. It is easily separated from all *Prolygus* species by the male genitalia, particularly by its complex endophallus.

Hosts: In Baiteta Forest, 4 specimens of *Prolygus polhemusorum* sp. nov. were recorded in 3 independent collection events, by fogging and by light trap, on *Chisocheton ceramicus* and *Dysoxylum patigravianum* (both Melicaceae).

"***Lygus***" *incertae sedis* near to ***Prolygus*** (Plate 17 fig. 6)

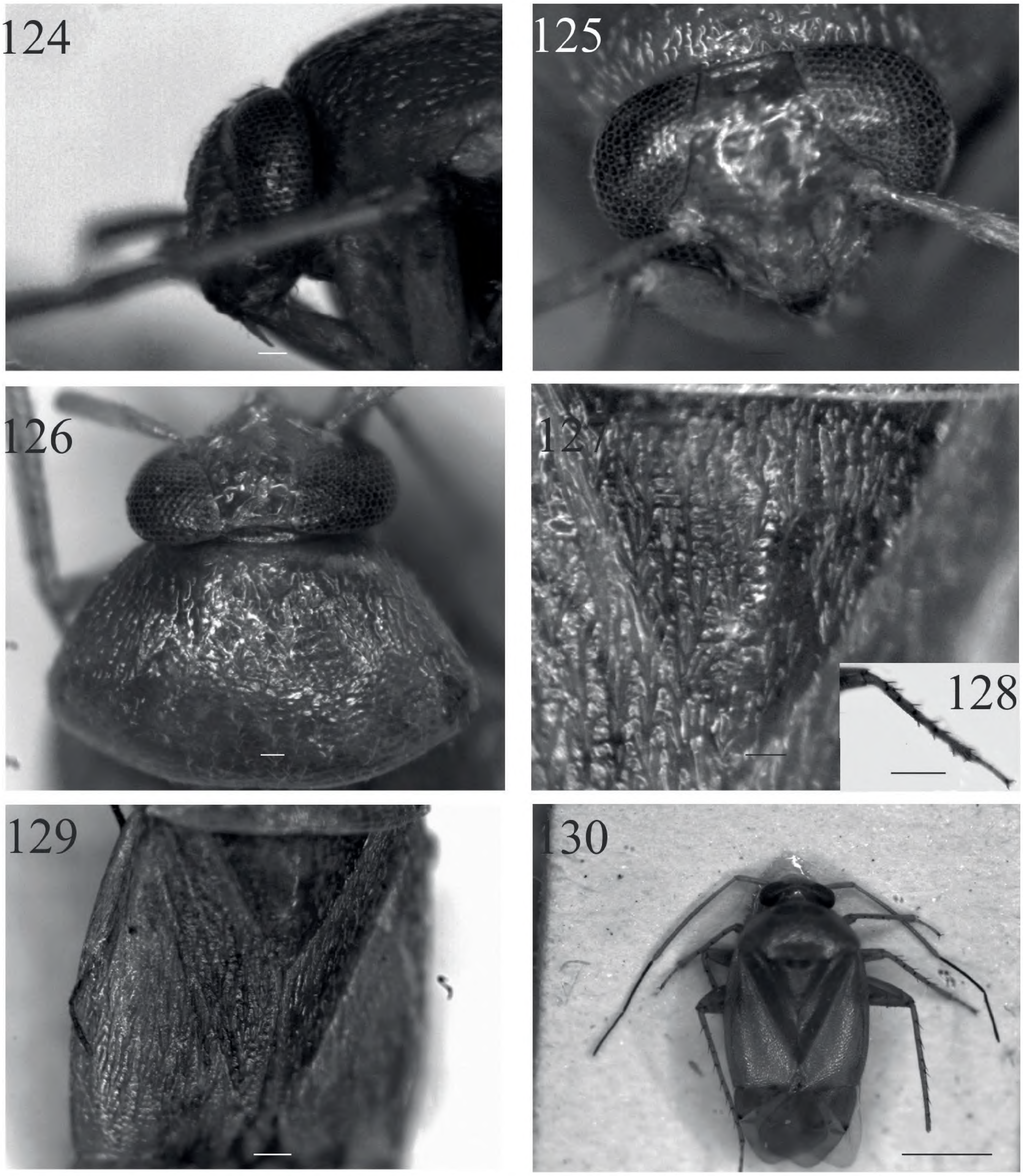
Additional material ISNB: Papua New Guinea: Madang: 1♀: Baiteta, 12.iv.1996, O. Missa leg., host unknown, fogging (FC n° 4065); 1♀: Baiteta, 25.vii.1996, O. Missa leg., host unknown, fogging (FC n° 4066).

Discussion: We were not able to attribute these two specimens to a genus of the *Lygus*-complex. Additional male specimens would be necessary to correctly classify this taxon.

***Sabactiopus* Zheng, Lin, 2002**

References: *Sabactiopus* Zheng, Lin, 2002: 76-77, as new genus; Schwartz & Chérot 2005: 16-17, new combinations; Zheng et al. 2005: 569-571, 719, redescription, in fauna; Schuh 2002-2013, online catalogue.

Type species: *Sabactiopus sauteri* (Poppius,



Figures 124-130. *Prolygus polhemusorum* sp. nov. 124-127 – Male holotype: 124 – Head, lateral view; 125 – Head, dorsal view; 126 – Pronotal surface; 127 – Scutellum, dorsal view; 128 – Median leg of female paratype FC n°5136a; 129 – Clavii and anterior parts of coria; 130 – Habitus, dorsal view, paratype ♀ FC n° 5136a [scale bar 0.1 mm, except fig. 128 scale bar 0.5 mm and fig. 130 scale bar 1 mm].

1912d), by original designation.

The genus *Sabactus* Distant, 1910a sensu Schwartz & Kerzhner (1997) and Schwartz & Foottit (1998) was not a homogenous taxon and was subdivided in two genera by Zheng & Lin (2002). The latter authors erected their genus *Sabactiopus* to accommodate *Lygus sauteri* Poppius, 1912d, transferred into the genus *Sabactus* by Schwartz & Kerzhner (1997). Adequate diagnosis of *Sabactiopus* was provided by Zheng & Lin (2002) and is not repeated here.

Sabactiopus formosus **(Distant, 1904c) comb. nov.**

Additional material 1♂ NHMW: *Sabactiopus formosus* (DISTANT, 1904c): INDIA: north east, MEGHALAYA STATE: Balpakram N(atural) P(ark), W(est) Garo Hills, 22-27.v.1996, 250-550 m., GPS N. 25°, 11', E. 90°51', leg. E. Jenedek & O. Sauss (FC n° 5433).

References: *Liocoris formosus* Distant, 1904c: 464, as new species; Schuh, 1995: 789 (catalog); *Sabactus formosus*: Schwartz & Foottit, 1998: 366, new combination.

Discussion: *Liocoris formosus* was described by Distant (1904c: 464) from Burma, Tenass Valley and subsequently reclassified in the genus *Sabactus* Distant, 1910a by Schwartz & Foottit (1998). By its habitus, *L. formosus* is close related to *L. sauteri* and consequently, we suggest the new combination: *Sabactiopus formosus* (Distant, 1904c) comb. nov.

Sabactiopus zhengi **sp. nov.** (Figs 131-137, 151-154, plate 17 fig. 7)

Holotype ♂ ISNB: Papua New Guinea: Madang: "*Sabactiopus zhengi* sp. nov. FC n°5067. Det. F. Chérot, 2011" / "Holotype *Sabactiopus zhengi* Chérot, Gorczyca, Schwartz & Demol" / "Coll. I.R.Sc.N.B., Canopy Mission Papua New Guinea, (Madang prov.): Baiteta 24.v.1995, fogging AR7 [the code AR7 corresponds to *Buchaniana heterophylla* (Anacardiaceae) or *Vitex cofassus* (Verbenaceae) or *Hernandia ovigera* (Hernandiaceae)], leg. O. Missa" (FC n°s 5067).

Other taxa examined for comparison: *Sabactiopus laevipennis* Poppius, 1914b. Philippines Islands: Luçon Island: lectotype ♀ ZMHF, designation: Schwartz & Chérot, 2005: "Mus. Zool. H:fors, Spec. typ. 10287, *Lygus laevipennis* Popp." / "1277" / "Los Banos, P. I. Baker". Sabactiopus sublaevis Poppius, 1914b. Indonesia: Sulawesi: Holotype ♀ HNHM: "Sabactus sublaevis Det. M. D. Schwartz, 1997" / "Typus" / "Sabactus sublaevis sp. nov."/ "S(outh) Celebes, Bua Kraeng, 5000`, II.1896, H. Fruhstorfer".

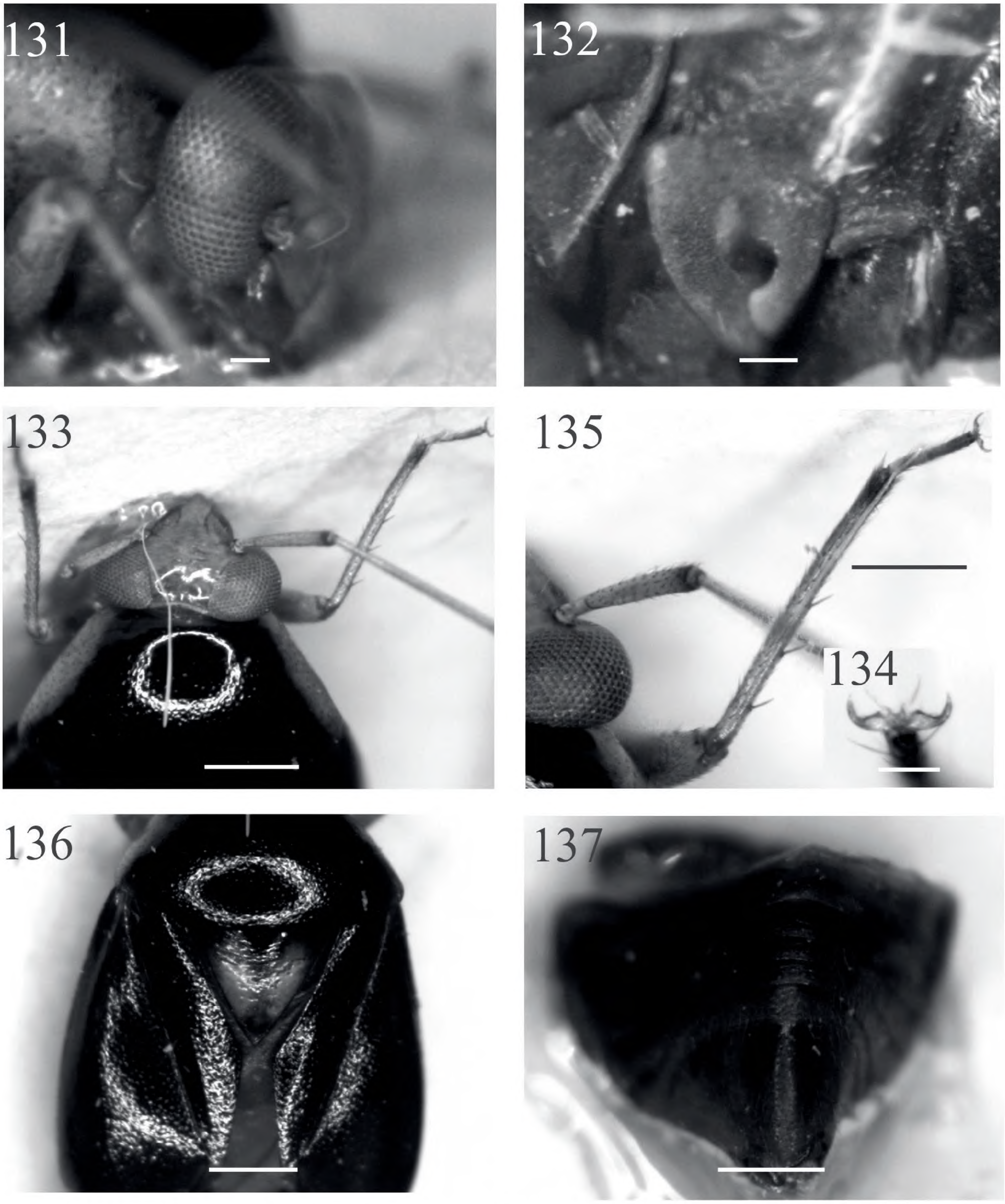
Derivatio nominis: The new species is dedicated to Prof. Leyi Zheng from Nankai University, Tianjin, Poeples Republic of China, for his important contribution to the knowledge of Chinese Heteroptera, particularly of the Miridae subfamily Mirinae.

Description: Body rounded, stout, strongly shining. Total length: 4.10; maximal width of hemelytra (after apex of clavus): 2.08. Dorsal colouration black and yellow to orange brown, contrasting (Plate 17 fig. 7). Head. Clypeus yellow, not covered by frons in dorsal view, with short, suberect, white setae. Tylus orange. Maxillary and mandibular plates uncarinate, lacking tubercle (Fig. 131), mandibular plates yellow to orange-brown, slightly striate, maxillary plates darker, red. Frons yellow, slightly rounded, almost glabrous, with some very short, recumbent or suberect, white setae, without sericeous or woolly setae (Fig. 133). Eyes almost glabrous, silvery, occupying about 75 percent of height of head in lateral view, covering partially pronotal collar in dorsal view. Total width of diatone: 1.10, width of vertex: 0.36. Vertex obviously carinate, slightly depressed medially. Carina narrow, curved laterally. Antenna elongate. First and second segments yellow to orange-brown, first with narrow brown ring subapically, second with apical 1/4 red-brown, third and fourth segments missing. Lengths of joints: I: 0.55, II: 1.70. Labium yellow-brown to red-brown, extending slightly beyond metacoxa. Thorax. Pronotum shining, bicolour (Fig. 133), lateral margins yellow to orange, the middle part black. Total length (collar included): 1.22. Posterior width: 1.96. Collar narrow, orange brown. Callosities reduced, hardly visible. Punctation of pronotal disk (Figs 133, 136) shallow but relatively wide. External scent gland (Fig. 132). Mesoscutum totally covered. Scutellum (Fig. 136) yellowish, base and medial line dark brown to black with red brown margin, apex and lateral corners red brown. Length: 0.75. Basal width: 0.83. Surface slightly striate basally, with some relatively wide punctures laterally. Legs (Fig. 135). Femora and tibia yellow-brown. Spines of protibia orange. Tarsi yellow, with apex of third orange-brown. Claws (Fig. 134). Hemelytra (Fig. 136, plate 17 fig. 7) dark brown to black, opaque. Clavus dark-brown to black, with dense, relatively wide and narrow punctuation. Corium dark-brown, punctation less dense. Cuneus dark brown to black, apex yellowish, intermediate area reddish. Length of cuneus: 0.75. Width of cuneus: 0.40. Membrane glassy, brownish with yellowish areas, veins brown. Abdomen (Fig. 137): brown with long white setae.

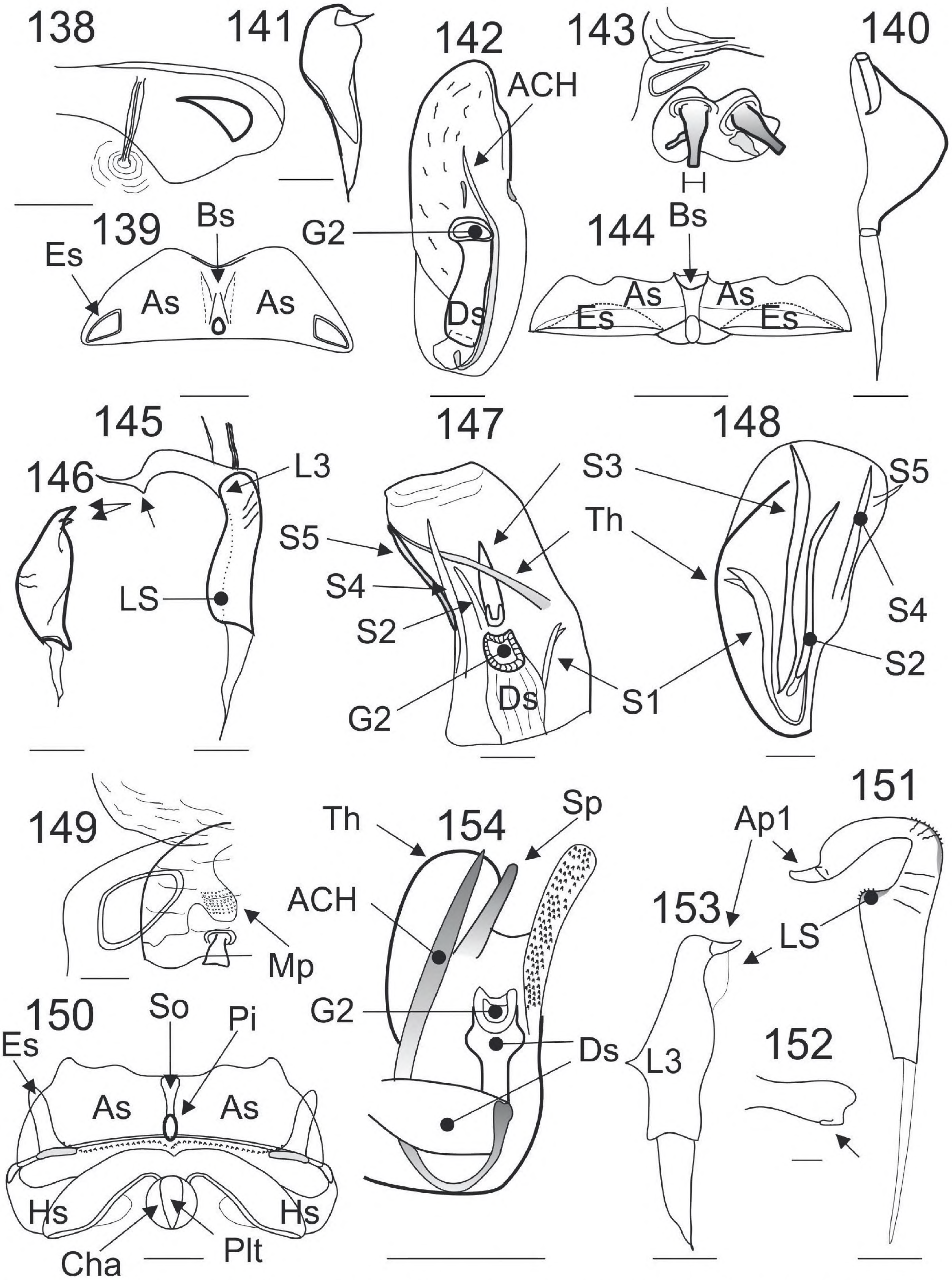
Male genitalia: Left paramere (Fig. 151) sickle-like, the sensory lobe (Ls) relatively reduced, toothed, body wide, primary apohysis (Ap1) with hooked apex (Fig. 152). Right paramere (Fig. 153) with pointed tertiary lobe (L3) and primary apohysis (Ap1). Endophallus (Fig. 154) with elongate ACH, small spiculum (Sp) and elongate toothed lateral lobe.

Sexual dimorphism: Female unknown.

Discussion: The relatively small, rounded, strongly shining body, the head vertical, short and high in lateral view, the vertex weakly depressed medially, fully carinate, the carina thick, slightly curved, the pronotum declive, almost glabrous, the anterior lateral corners of the pronotum and the collar



Figures 131-137. *Sabactiopus zhengi* sp. nov., holotype ♂ FC n° 5067; 131 – Head, lateral view; 132 – Mesepimeron and metepisternum; 133 – Head and pronotal surface, dorsal view; 134 – Pretarsus and claw; 135 – Anterior leg; 136 – Hemelytra; 137 – Pygophore [scale bar 0.1 mm, except figs 133 and 135-136 scale bar 0.5 mm].



Figures 138-152. Genital structures of Papuan Heteroptera. 138-139 – *Prolygus erimensis* (Poppius, 1914b), parieto-vaginal rings, dorsal view and posterior wall, FC n° 4068; 140-144 – *Prolygus* cf. *femoralis* (Poppius, 1914b), genitalia of both sexes: 140 – Left parameres, dorso-lateral view; 141 – Right paramere, dorsal view; 142 – Endophallus; 143 – Left parieto-vaginal ring and dorsal wall, dorsal view; 144 – Posterior wall; 145-150 – *P. polhemusorum* sp. nov., genitalia of both sexes, paratypes FC n°S 4054 and 5136a; 145 – Left paramere, dorsal view; 146 – Right paramere, dorsal view; 147-148 – Endophallus in different views; 149 – Left parieto-vaginal ring and dorsal wall, dorsal view; 150 – Posterior wall; 151-154 – *Sabactiopus zhengi* sp. nov., genitalia of male holotype; 151 – Left paramere, dorsal view; 152 – Apex of left paramere; 153 – Right paramere, dorsal view; 154 – Endophallus in dorso-lateral view [scale bar 0.1 mm].

partially hidden by the eyes in dorsal view, the collar lower than the anterior part of the pronotal disk, the pronotal punctures shallow and narrow, the pronotal callosities flat, the hemelytra shining, the clavus coarsely and shallowly punctate, the corium narrowly punctate, the colouration black and yellow to orange-brown of *S. zhengi* all perfectly conform with Zheng & Lin's (2002: 76-77) original diagnosis and description of the genus *Sabactiopus*.

At present, the genus *Sabactiopus* includes three species: *S. sauteri* Poppius, 1912d, its type species, *S. laevipennis* Poppius, 1914b and *S. sublaevis* Poppius, 1914b (cf. Schwartz & Chérot, 2005).

From these three species, *Sabactiopus zhengi* sp. nov. can be easily separated by the hemelytra almost unicolourous black devoid of yellow or yellow brownish areas. The scutellum not totally black and the pronotal disk black with the margins yellowish of *S. zhengi* sp. nov. differ obviously from *Apolygus eous* (Poppius, 1915b) and *Prolygus niger* (Poppius, 1915b) [14] patterns, two dark members of the *Lygus*-complex from the Oriental Region.

Hosts: Unknown. In the Baiteta Forest, *Sabactiopus zhengi* sp. nov. was recorded only once, by fogging, on an unknown host plant.

Tinginotopsis Poppius, 1915b

References: *Tinginotopsis* Poppius, 1915b: 23-24, as new genus; Schuh 1995: 963, catalogue; Kerzhner & Josifov 1999: 180-181, catalogue; Eyles 2000: 116, redescription; Zheng et al. 2005: 583, 686, 698, redescription, in fauna; Schuh 2002-2013, online catalogue.

Type species: *Tinginotopsis dromedarius* Poppius, 1915b, a junior synonym of *Tinginotopsis oryzae* (Matsumura, 1910), the synonymy by Yasunaga et al. 1996.

Redescription: Adequate diagnoses of *Tinginotopsis* were provided by Carvalho (1987a), Yasunaga (1999), and Eyles (2000) and are not repeated here.

Tinginotopsis camelus Poppius, 1915a (Plate 18 fig. 1)

Lectotype ♂ ZMHF, designation by Carvalho, 1987a: 166-167: Papua New Guinea: Morobe: "Mus. Zool. Hels. Loan n° HE 96-42" / "*Tinginotopsis camelus* Popp. Det. J.C.M. Carvalho" / "Mus. Zool. ZMHF. Loan n° HE 2964" / "Mus. Zool. H:fors. Spec. typ. n° 10166 *Tinginotopsis camelus* Popp." (partially manuscript label) / "*Tinginotopsis camelus* sp. nov." (manuscript label) / "lectotype" / "Sattelberg, Huon Golf" / "N. Guinea. *Biró* 1899" (FC n°946a).

Additional material: Papua New Guinea: Madang: 1♂ & 1♀ ISNB: Baiteta, 07.vi.1996, O. Missa leg., host plant unknown, fogging (FC n° 3899-3900); Northern Province: 1? BMNH: Kokoda. 200 feet. IX.1933, L. E. Cheesman, B. M. 1934-321 (FC n° 1356).

References: *Tinginotopsis camelus* Poppius, 1915a: 59, as new species; Schuh 1995: 963, catalogue; Eyles 2000: 115, 116-117, redescription, FG, eggs; Schuh 2002-2013, online catalogue.

Discussion: *Tinginotopsis camelus* Poppius, 1915 was described on a series of specimens of both sexes from Sattelberg, Huon Gulf, Morobe Province and from Astrolabe Bay, Madang Province, Papua New Guinea. Carvalho (1987a: 167) cites numerous specimens from Indonesia, Papua Barat (Baliem Valley; Kebar Valley; Star Mountains; Warris) and from Papua New Guinea (Kassam, 48 km E. of Kainantu, Eastern Highlands; Kokoda, Northern Province; Lae beach, Morobe Province; Wau, Morobe Province).

Hosts: In Baiteta Forest, *T. camelus* was recorded one time, by fogging, on an unknown host plant.

Tinginotum Kirkaldy, 1902a

References: *Tinginotum* Kirkaldy, 1902a: 263, as new genus; Carvalho, 1959: 267, catalogue; Odhiambo, 1960: 466-467, redescription; Carvalho, 1987a: 169-170, redescription; Schuh, 1995: 963-965, catalogue; Yasunaga, 1999: 39, redescription; Eyles, 2000: 112, diagnosis; Zheng et al. 2005: 584-585, 687, 720, redescription, in fauna; Schuh, 2002-2013, online catalogue.

Type species: *Tinginotum javanum* Kirkaldy, 1902a, by monotypy.

Redescription: Adequate diagnoses of *Tinginotum* were provided by Odhiambo (1960), Carvalho (1987a), Yasunaga (1999) and Eyles (2000) and are not repeated here.

Tinginotum knowlesi (Kirkaldy, 1908a) (Plate 18 fig. 2)

Additional material: Papua New Guinea: Madang: 1♂ ISNB: Baiteta, 26.iii.1993, O. Missa leg., on *Pometia pinata* (Sapindaceae), light (FC n° 3902); 1♂ & 3♀ ISNB: *idem*, 19.v.1993, O. Missa leg., on *Pometia pinata*

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[14] This species is cited, as "sp. nov.", in the key and the list of Poppius' Indo-Australische *Lygus*-Arten (1914b, respectively p. 340 and p. 396) but is not described in detail in this paper. It is described in detail in Poppius' H Sauter's Formosa Ausbeute (1915b: 35-36) and then generally credited to Poppius (1915b) and not to Poppius (1914b). It is also the case for the other new species from Taiwan include in both works, for example *Lygus eous*, as pointed out by Poppius himself (1914b: 337) in his introduction of the *Lygus*-Arten paper.

(Sapindaceae), light (FC n° 3905, 3907-3909); 1♂ ISNB: *idem*, 09.vi.1993, O. Missa leg., on *Pometia pinata* (Sapindaceae), light (FC n° 3901); 1♂ ISNB: *idem*, 14.vi.1995, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), fogging (FC n° 3911); 3♂ & 1♀ ISNB: *idem*, 03.viii.1995, O. Missa leg., on *Artrocarpus incisus* (Moraceae), fogging (FC n° 3827-3830); 1♂ ISNB: *idem*, 24.iv.1996, O. Missa leg., on *Chisocheton ceramicus* (Meliaceae), light trap (FC n° 3906); 1♂ ISNB: *idem*, 24.iv.1996, O. Missa leg., host unknown, light trap (FC n° 3904); 1♀ ISNB: *idem*, ?.iv.1996, O. Missa leg., host unknown, fogging (FC n° 3910); 1♂ ISNB: *idem*, 01.vii.1996, O. Missa leg., *Buchanania heterophylla* (Anacardiaceae) or *Vitex cofassus* (Verbenaceae) or *Hernandia ovigera* (Hernandiaceae), light (FC n° 3903).

References: *Neosodaphne knowlesi* Kirkaldy, 1908a: 381, as new species; Carvalho & Wallerstein 1976: 688-689, redescription, MG; *Tinginotum knowlesi*: Carvalho 1987a: 174-175, redescription, synonymy, MG; Schuh 1995: 964, catalogue; Eyles 2000: 115-116, citation; Schuh 2002-2013, online catalogue.

Discussion: *Tinginotum knowlesi* (Kirkaldy, 1908) was described at least on the male holotype from Lautoka, Viti Levu Island, Fiji Islands. This type specimen was subsequently redescribed by Carvalho & Wallerstein (1976). Kirkaldy's text seems indicate that the author has seen more than one specimen (it mentions variability in number of tufts of setae on scutellum and two different host plants). However, Kirkaldy does not explicitly include additional specimens in his type-series. Carvalho (1987a: 174) cites numerous specimens from Indonesia, Papua Barat (Wewak, Biak Island; Genjan, 40 km W. of Hollandia, presently Jayapura; Ifar, Cyclops Mountains; Kebar Valley; Wisselmeren, presently Paniai Lakes) and from Papua New Guinea (Astrolabe Bay, Madang Province; Betege, 20 km E. of Koroba, Southern Highlands; Deradere, near Javarere, Central Province; Finschafen, Morobe Province; Fly River, Kiunga, Western Province; Koitaki; Kokoda, Northern Province; Mt Kaindi, Morobe Province; Numbu, Upper Chimbu Valley, Chimbu or Simbu; Sattelberg, Huon Gulf, Morobe Province; Malmalwau, Vunakanau, East New Britain; Schleitniz Mountains, New Ireland Island, New Ireland Province; Woodlark Island, Milne Bay Province), including types of junior synonyms. The species occurs also widely in Pacific Islands such Guam (United States of America), Caroline Islands (Federal State of Micronesia), Cook Island, Niue Island, Samoa, Society Island (French Polynesia) and Tahiti (French Polynesia) (Carvalho 1956; Eyles 2000; Schuh 1995).

Hosts: In Baiteta Forest, 15 specimens of *Tinginotum knowlesi* (Kirkaldy, 1908) were recorded in 9 independent collection events, by fogging and by light trap, from *Artrocarpus incisus*, *Chisocheton ceramicus*, *Pometia pinnata* and several unknown host plants. In the literature, *T. knowlesi* was also cited as recorded from *Artrocarpus altilis* (Eyles 2000: 115), from *A. incisus* (both Moraceae) (Kirkaldy 1908a: 381; Carvalho & Wallerstein 1976: 688) and from tobacco leaves (Solenaceae) (Kirkaldy 1908a: 381; Carvalho & Wallerstein 1976: 688).

***Warrisia* Carvalho, 1986a**

References: *Warrisia* Carvalho, 1986a: 493-94, as new genus; Schuh, 1995: 975, catalogue; Yasunaga et al. 2002: 18-19; Schuh, 2002-2013, online catalogue.

Type species: *Lygus huonensis* Poppius, 1914b, original designation.

= *Gotocapsus* Yasunaga, Nakatani, 1998: 29-30, as new genus.

Type species: *Gotocapsus deraeocoroides* Yasunaga, Nakatani, 1998 (the generic synonymy by Yasunaga et al. 2002: 18).

***Warrisia huonensis* (Poppius, 1914b)** (Figs 162-163, plate 18 fig. 3)

= *Lygus tonkinensis* Poppius, 1914b: 355, as new species; Schuh 1995: 827, as *incertae sedis*; Yasunaga et al. 2002: 19-20, synonymy.

Holotype ♂ MZHF: Vietnam: "Tonkin, Montes Mauson (= Mẫu So'n Mont), Avril Mai, 2-3000', Fruhstorfer" / "*Lygus tonkinensis*" sp. nov. (manuscript) / "Mus. Zool. H:fors. Spec. typ. n° 10258 *Lygus tonkinensis* Popp." / "Holotype *Lygus tonkinensis*, labelled M. D. Schwartz, 1996".

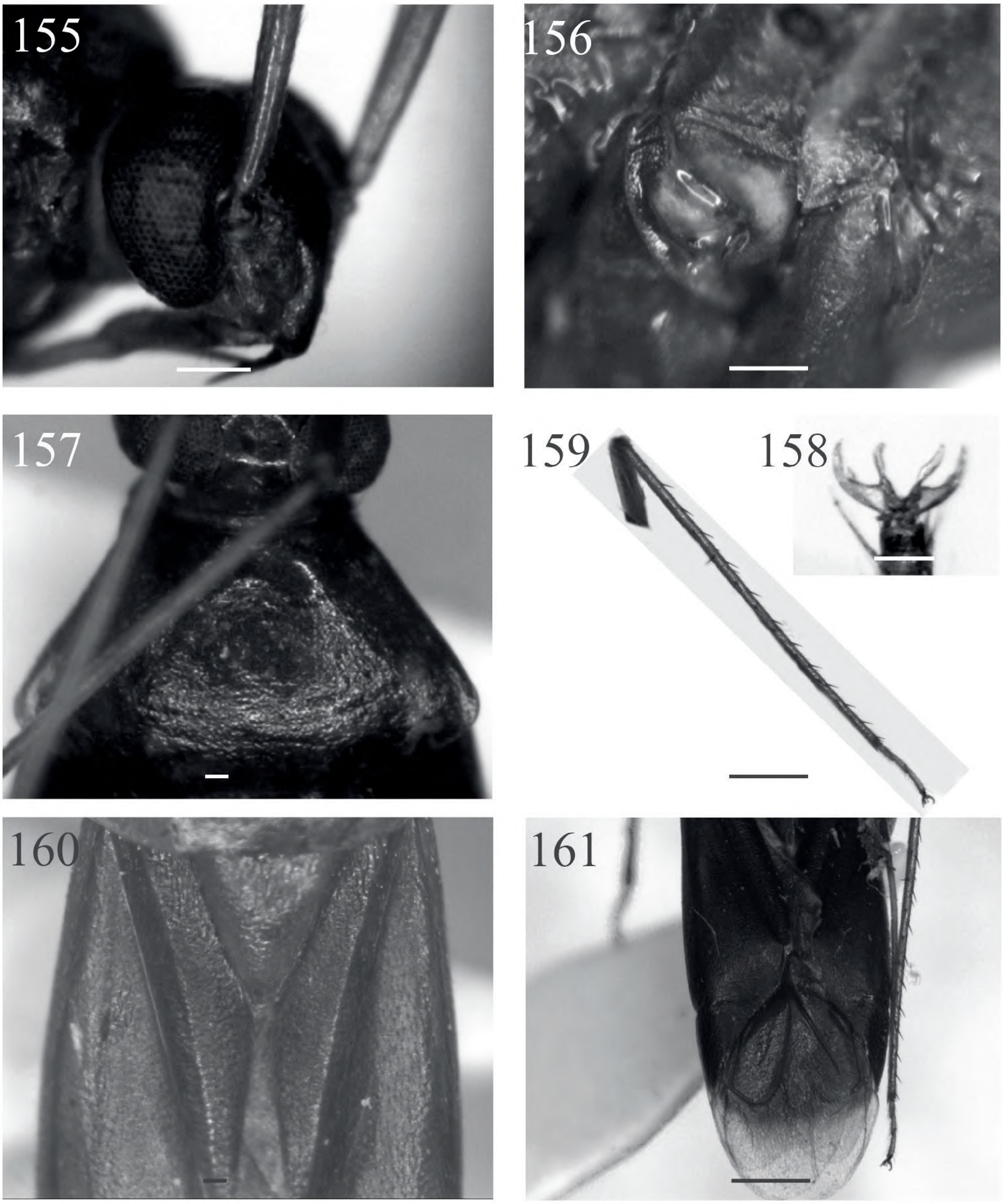
Additional material: Indonesia: Papua Barat: 1♀ MNRJ: Warris, S. of Hollandia, 450-500 m., 1-7.viii.1959, T. C. Maa, Sweeping (FC n° 1461). Papua New Guinea: Madang: 1♀ ISNB: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap (FC n° 3866); Morobe: 1♂ USNM: Mt Kaindi, 2200-2350 m., 25-26.iii.1965, J. Sedlacek, Malaise Trap (compared with the type of *W. huonensis* by Carvalho, 1987b) (FC n° 1083); 1♀ MNRJ: Kepilam, 2400 m., 20-22.vi.1963, J. Sedlacek, Light trap (FC n° 1460); New Ireland: 1♀ MNRJ: Kandan, 1.i.1960, W. W. Brandt Collector (compared with the type of *W. huonensis* by Carvalho) (FC n° 1459).

References: *Lygus huonensis* Poppius, 1914b: 356, as new species; *Warrisia huonensis*: Carvalho 1986a: 493-495, new combination, redescription; Schuh 1995: 971, catalogue; Yasunaga et al. 2002:

19-21, 22, MG, measurements; Schuh 2002-2013, online catalogue.

Addition to the original description: The female genitalia of this species, still unknown, are described hereafter for the first time.

Female genitalia: Seminal depository unknown. Parieto-vaginal rings (Fig. 162, Ap) large, totally separated; anterior margin slightly convex, outer margin convex, posterior margin almost straight, inner margins very short, acute. Dorso-labiate



Figures 155-161. *Waucoris keyensis* (Poppius, 1915a). 155 – Head, lateral view (FC n° 4926); 156 – Mesepimeron and metepisternum (FC n° 4926); 157 – Pronotal surface (FC n° 4926); 158 – Pretarsus and claw (FC n°3865B); 159 – Hind leg (FC n°4919); 160 – Scutellum, clavii and anterior parts of coria, dorsal view (FC n°4921); 161 – Corium and membrane, dorsal view (FC n° 4919) [scale bar 0.1 mm, except figs 159 and 161 scale bar 1 mm].

plate (DLP) wide, its margins unsclerotized. Ventral labiate plate unsclerotised. Posterior wall (Fig. 163) elongate. Inter-ramal sclerites or A structures (As) with slightly concave dorsal margins and strongly convex ventral margins; lateral margins almost straight. B structure (Bs) devoid of posterior plate. Base (or dorsal structure, Ds) subdivided in "plate" and "hat", median process wide; inter-ramal lobes or E structures (ES) small, totally separated from median process. Lateral lobes or H structures absent.

Discussion: *Warrisia huonensis* (Poppius, 1914b) was described on the male holotype from Sattelberg, Huon Gulf, Morobe Province, Papua New Guinea alone. The species occurs widely in south-east Asia and New Guinea. Carvalho (1986a) and Yasunaga et al. (2002) mention numerous specimens from Indonesia [Sumatra and Papua Barat (Swart Valley, Karubaka; Star Mountains; Warris)], Malaysia, Papua New Guinea [between Agamoia and Ailuluai, Fergusson Island, Milne Bay Province; Finisterre Range, Morobe Province; Kandan, New Ireland Island, New Ireland Province; Kandep, Western Highlands Province; Laiagan, Western Highlands; Mapik, East Sepik Province; Missim Mountains, Morobe Province; Mt Kaindi, Morobe Province; Mt Michael, Eastern Higlands Province; Schleitniz Mountains, New Ireland Island, New Ireland Province] and Vietnam.

Hosts: In the Baiteta Forest, *Warrisia huonensis* (Poppius, 1914b) was recorded only once, by light trap, on *Dracontomelum dao* (Anacardiaceae). The closely related species from Japan, *W. deraeocoroides* (Yasunaga et Nakatani, 1998), was recorded from *Daphiphyllum teijsmanni* (Euphorbiaceae) (Yasunaga et al. 2002).

Waucoris Carvalho, 1987b

References: *Waucoris* Carvalho, 1987b: 156, as new genus; Schuh 1995: 971-972, catalogue; Schuh 2002-2013, online catalogue; Chérot & Malipatil 2016: 190-191.

Type species: *Waucoris keyensis* (Poppius, 1915a), original designation.

Redescription: *Waucoris* Carvalho, 1987 as redefined by Chérot & Malipatil (2016) includes wide *Adelphocoris*-like mirine bugs (Plate 18 figs 5-13), frequently shiny, yellow, orange or black, with simple, recumbent, white dorsal pilosity and classical non-*Phytocoris*-like metafemora, devoid of erect stiff black setae on anterior corners of pronotum of females. Endophallic structures complex, including convoluted ACH. Parieto-vaginal rings wide with acute prolongation on postero-outer margin, latero-inner margins very close. Ventral labiate plate always obvious, generally narrowed medially and with acute lateral corners. Pair of toothed medial processes projecting into genitalic chamber, apparently arising from a reinforced part of lateral roof of chamber, partially hidden by dorsal wall (shape of processes apparently species-specific). Posterior wall devoid of H-structure.

Discussion: Carvalho's key (1987b: 156) of *Waucoris* species is difficult to use and even misleading, mainly because he did not sufficiently take account of the intraspecific variability, particularly for Poppius' species *Adelphocoris keyensis*, but also because he included too different bugs in *Waucoris*, which are presently classified in three different genera. We provide hereafter a new key of continental Papuan species of the genus.

Key to *Waucoris* Carvalho, 1987 from mainland New Guinea

1 Hemelytra with two contrasting colours: the clavii, apices excepted, the basal part of coria and a band (or some small patches) along cunei dark brown to black, a wide transversal fascie on coria and apical part of clavii orange, reddish or lutescent (Plate 18 fig. 7). Cunei dark, red-brown or black. Sometimes, the hemelytra of females almost totally orange, reddish or lutescent except for a band (or some small patches) along cunei dark brown to black (Plate 18 figs 5-6). Scutellum generally uniform, orange, reddish, lutescent or red-brown. Pronotum orange, reddish or lutescent frequently with, in the middle, a wide black patch posteriorly .... *Waucoris wauensis* Carvalho, 1987

– Hemelytra widely dark, brown or black, sometimes orange-brown 2

2 Scutellum yellow sometimes with a basal triangular patch or a medial stripe brown or black. The contrast between hemelytra and scutellum colours striking. Pronotum orange with a wide, subtriangular, black or dark brown posterior patch frequently prolongated by a narrow stripe towards the calli (Plate 18 figs 8-9) .... *Waucoris papuanus* (Poppius, 1915)

– Scutellum dark, brown or black, or orange, not or slightly contrasting with the hemelytra 3

3 Dorsal surface dark, reddish-brown to black, almost unicolourous (Plate 18 fig. 10). Endophallus with a convoluted spiculum. Right paramere tiny, with two subapical tips .... *Waucoris longipes* (Poppius, 1915)

– Dorsal surface of body normally with different colours: hemelytra dark, reddish-brown to black, almost unicolourous, scutellum identical or orange, pronotum orange, orange with a black spot or patch, orange with a medial black stripe or totally black, except for an orange strip on the lateral sides (Plate 18 figs 11-13).

Endophallus complex but devoid of convoluted spiculum. Right paramere large, its apex having one lobe .... *Waucoris keyensis* (Poppius, 1915)

***Waucoris keyensis* (Poppius, 1915a)** (Figs 155-161, 164-165, plate 18 figs 11-13)

Holotype by monotyopy ♀ ZMHF: Indonesia: The Moluccas, Kei Kecil Island, Tual: "Mus. Zool. Helsinki Loan n° HE 05-41" / "*A. keyensis* Mirinae 1 Popp. Not *Adelphocoris*" / "*Adelphocoris keyensis* Pop. Det. J.C.M. Carvalho" / "Mus. Zool. Helsinki Loan n° HE 2975" / "Mus. Zool. H:fors Spec. typ. No 10083 *Adelphocoris keyensis* Popp." / "*Adelphocoris keyensis* sp. nov." (manuscript label) / "Holotipo" / "Wien" / "Key Tual, *Rohde*, ex. Coll. H. Fruhstorfer" .

Additional material: Papua New Guinea: Eastern New Britain (Gazelle Peninsula): 1♂ ZMHF: Bismarck Arch, Ralum, Matupi, 02.xi.1896, *Dahl* S. leg., on *Desmodium umbellatum*[15]; Madang: 4♂, 4♀, 1? ISNB: Baiteta, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n°s 3865a, 4917-4920, 4923-4924, 4926, sans n°); 2♂ ISNB: Baiteta, 02.viii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Melicaceae), fogging (FC n°s 4921-4922); 1♀ ISNB: Baiteta, 1995, O. Missa leg., on *Celtis latifolia* (Ulmaceae), fogging (FC n° 3865b).

References: *Adelphocoris keyensis* Poppius, 1915a: 32, as new species; *Waucoris keyensis*: Carvalho 1987b: 157-159, new combination, redescription, MG; Schuh 1995: 972, catalogue; Schuh 2002-2013, online catalogue; Chérot & Malipatil (2016).

Addition to the original description: Variability as on the plate 18 figs 11-13. Morphology as on Figs 155-161. The female genitalia of this species, still unknown, are described hereafter for the first time.

Female genitalia: Anterior sac unknown. Parieto-vaginal rings (Fig. 164) wide, anterior and latero-inner margins convex, posterior margin slightly concave, latero-outer margin almost straight, postero-outer corners with acute lateral prolongation. Ventro-labiate plate wide and elongate, narrowed medially. Lateral oviducts short and stout. Pair of subtriangular medial process projecting into genital chamber, apparently arising from reinforced part of lateral roof of chamber, partially hidden in dorsal view by dorsal wall. Posterior wall (Fig. 165) with complex B structure (Bs), elongate A and E structures (these later difficult to see) and lateral plates. H structures absent.

Discussion: *Waucoris keyensis* (Poppius, 1915a) was described on the male holotype from Tual alone. Additional specimens were cited by Carvalho (1987b: 159) from Papua New Guinea (Bisianumu, Central Province; Kapagere, near Rigo, Central Province; Kulumadau Hill, Woodlark Island, Milne Bay Province).

Hosts: In the Baiteta Forest, 12 specimens of *Waucoris keyensis* (Poppius, 1915a) were recorded by fogging, in three independent collection events, on three different plants: *Celtis latifolia* (Ulmaceae), *Dysoxylum patigravianum* (Meliaceae) and *Neonauclea* sp. (Rubiaceae).

Notes: The holotype by monotypy is preserved in ZMHF and not in Vienna's Museum ("Mus. Vindob.") as asserted by Poppius (1915a: 32).

***Waucoris longipes* (Poppius, 1915a)** (Figs 168-169, plate 18 fig. 10)

Holotype by monotypy ♂ ZMHF: Papua New Guinea: Morobe: "Mus. Zool. Helsinki Loan n° HE 05-35" / "*A. longipes* ? Mirinae 1 N A close to *Orientomiris*" / "*Adelphocoris longipes* Pop. Det. J.C.M. Carvalho" / "Mus. Zool. H:fors Spec. typ. No 10081 *Adelphocoris longipes* Popp." / "*Adelphocoris longipes* sp. nov." (manuscript label) / "Mus. Zool. Helsinki Loan n° HE 2976" / "Holotipo" / "Sattelberg, Huon Golf" / "N. Guinea, Biro" (= Biró) "1896" (FC n° 4914).

Additional material: Papua New Guinea: Madang: 1♀ ISNB: Baiteta, 08.ii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 3857); Central Province: 1♀ MNRJ: Bisianumu, (north-) east of Port Moresby, 08.vi.1955, Gressitt J. L. leg., primary forest, 500m (FC n° 4264).

References: *Adelphocoris longipes* Poppius, 1915a: 34-35, as new species; *Waucoris longipes*: Carvalho, 1987b: 159, 161, new combination, redescription, MG; Schuh, 1995: 972, catalogue; Schuh 2002-2013, online catalogue; Chérot & Malipatil (2016).

Addition to the original description: The female genitalia of this species, still unknown, are described hereafter for the first time.

Female genitalia: Anterior sac unknown. Parieto-vaginal rings (Fig. 168) wide, anterior margin slightly sigmoid, latero-inner margin convex, posterior margin slightly concave, latero-outer margin almost straight. Ventro-labiate plate wide and elongate, slightly narrowed medially. Pair of short subtriangular medial processes projecting into genitalic chamber, apparently arising from reinforced part of lateral roof of chamber, partially hidden in dorsal view by dorsal wall. Posterior wall (Fig. 169) with complex B structure, pair of elongate

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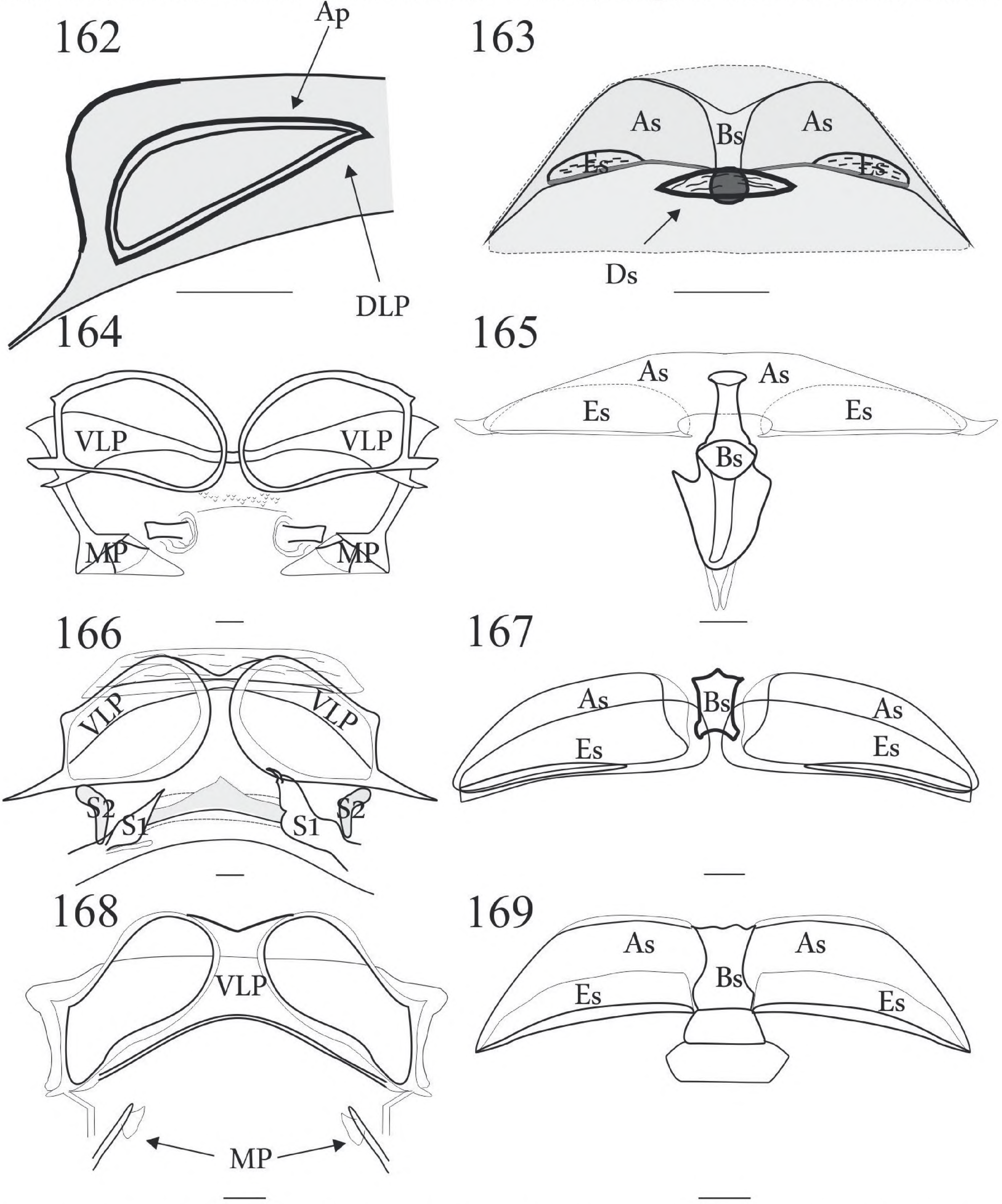
[15] *Desmodium umbellatum* is a Fabaceae known from Tropical Africa (notably Zanzibar and Kenya), Madagascar, tropical Asia, including Malaysia and the Philippines, New Guinea and northern Australia.

A and E structures and pair of lateral plates. H structures absent.

Discussion: *Waucoris longipes* (Poppius, 1915a) was described on the male holotype from Sattelberg, Huon Gulf, Morobe Province alone. Additional specimens were cited by Carvalho (1987b: 161) from Indonesia (Papua Barat: Karubaka, Swart Valley) and from Papua New Guinea (Bisianumu, Central Province; Giluwe Mts, Southern Highlands Province; Betege, 20 km SW of Koroba, Southern



Figures 162-169. *Warrisia huonensis* (Poppius, 1914b) and *Waucoris* species, female genitalia. 162-163 – *Warrisia huonensis* (Poppius, 1914b), left parieto-vaginal rings, dorsal view and posterior wall; 164-165 – *Waucoris keyensis* (Poppius, 1915a), parieto-vaginal rings and posterior wall; 166-167 – *Waucoris papuanus* (Poppius, 1915a), parieto-vaginal rings and posterior wall; 168-169 – *Waucoris longipes* (Poppius, 1915a), parieto-vaginal rings, dorsal view and posterior wall [scale bar 0.1 mm].

Highlands Province; Wau, Morobe Province).

The placement of this species in the genus *Waucoris* remains problematic. "*W.*" *longipes* is similar to several *Orientomiris* species by its elongate, dark habitus, by its double dorsal punctation, one dense, very narrow, shallow, the second wider, erased, difficult to see, by the proeminent veins of the hemelytra, but differs from the *Orientomiris* by the structure of the endophallus and by the smaller size. We were not able to find a genus to correctly accommodate "*W.*" *longipes*. Since we analyse only few specimens of *W. longipes*, because numerous genera of the *Adelphocoris-Creontiades-Megacoelum* complex should be carefully redefined and because a lot of new genera of the complex must still be described particularly from Australia, we prefer to temporarily keep "*W.*" *longipes* in the genus *Waucoris*.

Hosts: In the Baiteta Forest, *Waucoris longipes* (Poppius, 1915a) was recorded only one time, by fogging, on *Dysoxylum patigravianum* (Meliaceae).

Notes: The holotype by monotypy is preserved in ZMHF (Carvalho 1987b: 161 and first author's personal observation) not in HNHM as asserted by Poppius (1915a: 35). The spelling of the species group name as "*longipedes*" (Carvalho 1987b: 156) is an incorrect subsequent spelling.

***Waucoris papuanus* (Poppius, 1915a)** (Figs 166-167, plate 18 figs 8-9)

Holotype by monotypy ♀ ZMHF: Papua New Guinea: Madang: "Mus. Zool. Helsinki Loan n° HE2977" / "*Adelphocoris papuanus* Pop. Det. J.C.M. Carvalho" / "Mus. Zool. H:fors Spec. typ. No 10080 *Adelphocoris papuanus* Popp." / "*Adelphocoris papuanus* sp. nov." (manuscript label) / "Holotipo" / "Erima, Astrolabe B(ay)" / N. Guinea, Biró (18)96".

Additional material: Papua New Guinea: Madang: 1♂ ISNB: Baiteta, 16.iii.1993, O. Missa leg., on *Dracontomelum dao* (Anacardiaceae), light trap FC n° 4927); 1♀ ISNB: Baiteta, 02.vii.1995, O. Missa leg., on *Dysoxylum patigravianum* (Meliaceae), fogging (FC n° 4926); 5♂, 2♀, 1? ISNB: Baiteta, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n°s 3858-3864, 4925).

References: *Adelphocoris papuanus* Poppius, 1915a: 33, as new species; *Waucoris papuanus*: Carvalho 1987b: 160, 161, new combination, redescription, MG; Schuh 1995: 972, catalogue; Schuh 2002-2013, online catalogue; Chérot & Malipatil 2016.

Addition to the original description: The female genitalia of this species, still unknown, are described hereafter for the first time.

Female genitalia: Anterior sac unkown. Parieto-vaginal rings (Fig. 166) wide, anterior margin slightly sigmoid, latero-inner margin convex, posterior margin and latero-outer margin almost straight, postero-outer corners with acute and elongate lateral prolongation. Ventro-labiate plate wide and elongate, obviously narrowed medially. Pair of elongate and pointed medial processes projecting into genitalic chamber, apparently arising from reinforced part of lateral roof of chamber, partially hidden in dorsal view by dorsal wall. Posterior wall (Fig. 167) with reduced B structure, pair of elongate A and E structures and pair of lateral plates. H structures absent.

Discussion: *Waucoris papuanus* (Poppius, 1915a) was described on the female holotype from Erima, Astrolabe Bay, Madang Province alone. Additional specimens were cited by Carvalho (1987b: 161) from Papua New Guinea (Gabuni village, Finisterre Range, Morobe Province; Goilala, Central Province; Kapagere, near Rigo, Central Province; Mamai, Central Province; Wakaiuna, Normanby Island, Milne Bay Province).

Hosts: In the Baiteta Forest, 10 specimens of *Waucoris papuanus* (Poppius, 1915a) were recorded by fogging and light trap, in three independent collection events, on three different plants: *Dracontomelum dao* (Anacardiaceae), *Dysoxylum patigravianum* (Meliaceae) and *Neonauclea* sp. (Rubiaceae).

Note: The holotype by monotypy is preserved in ZMHF, not in HNHM as asserted by Poppius (1915a: 34).

***Waucoris wauensis* Carvalho, 1987b** (Plate 18 figs 5-7)

Paratypes MNRJ: Papua New Guinea: Northern Province: 1♀: Eliptamin valley, 19.vi.1959, *Brandt W. W.* leg. (FC n°s 4265-4266); 1♀: Eliptamin valley, 16.viii.1959, Brandt W. W. leg. (FC n° 4260).

Additional material 1♂ & 2♀ ISNB: Papua New Guinea: Madang: Baiteta, 14.vii.1995, O. Missa leg., on *Neonauclea* sp. (Rubiaceae), fogging (FC n°s 3854-3856).

References: *Waucoris wauensis*: Carvalho 1987b: 163-164, as new species: description, MG; Schuh 1995: 972, catalogue; Schuh 2002-2013, online catalogue; Chérot & Malipatil 2016.

Discussion: *Waucoris wauensis* Carvalho, 1987b was described on the male holotype from Wau, Morobe Province and 14 paratypes of both sexes from different places in Papua New Guinea (Eliptamin Valley, Northern Province; Foramin (an unidentified place); Matoko village, Finisterre

Range, Morobe Province; Madang, Madang Province; Wanuma, Adelbert Mts, Madang Province; Tifalmin, Western Province; Kunard Creek, Wau, Morobe Province).
Hosts: In Baiteta Forest, 3 specimens of *Waucoris wauensis* Carvalho, 1987 were recorded by fogging, in one collection event, on *Neonauclea* sp. (Rubiaceae). As our females were teneral, their genitalia remain unknown.

Stenodemini Douglas, Scott, 1865

Lasiomiris Reuter, 1891

References: *Lasiomiris* Reuter, 1891: 130, as new genus; Carvalho & Afonso, 1977: 816-814, redescription; Zheng, 1986: 88, redescription; Schwartz, 1987: 228-233, redescription in PhD; Schuh, 1995: 1009-1010, catalogue; Schwartz, 2008: 1186, 1188-1189, redescription; Schuh, 2002-2013, online catalogue.
Type species: *Lasiomiris lineaticollis* Reuter, 1891, by monotypy, a junior synonym of *L. albopilosus* (Lethierry, 1888).

Lasiomiris neoguineanus Carvalho, Afonso, 1977

(Plate 18 fig. 4)

Additional material 4♂ & 3♀ ISNB: Papua New Guinea: Eastern Highlands: Bismarck Range, Iwam Pass, 12.v.1988, host unknown, leg. J. Van Stalle (FC n°s 4065-4072).

References: *Lasiomiris neoguineanus* Carvalho, Afonso, 1977: 816-817, as new species; Schwartz, 1987: 233, citation; Schuh, 1995: 1009, catalogue; Schwartz, 2008: 1189, citation, as "Palaearctic species"; Schuh, 2002-2013, online catalogue.
Discussion: The male genitalia perfectly agree with Carvalho & Afonso's descriptions and drawings (1977: p. 817, figs 24-26).
Note: This species was not recorded from Baiteta Forest.

Discussion

The analysed samples from Baiteta Forest included a total of 50 species of Bryocorinae, Cylapinae, Deraeocorinae and Mirinae. The species richness of this one square kilometer coastal forest represents then approximately 20% of the 247 species presently known from Papua New Guinea (cf. list in table 3). Seven species, i.e. 14% of the Forest's species richness, are described as new in the present work. Nine species, i.e. 18% of the Forest's species richness, were known before ISNB's expeditions just by their name-bearing type. Twelve species, 24% of the Forest's species richness, are new for Papua New Guinea.

Interestingly, all or almost all Papuan species of several genera, such as *Imogen* or *Waucoris*, were found in Baiteta even though some other endemic genera of New Guinea (including Papua Barat) seem totally absent. For example, we did not find any *Cheesmaniella* (4 described species), *Ialibua* (8 described species), *Moroca* (16 described species), *Peltidopeplus* (2 described species) or *Ragwelellus* (11 described species) species in the Baiteta samples.

The majority of the collected species (at least 38/50 i.e. 76%) could be considered endemic to the Papuan zoogeographical subregion (Papua New Guinea, Papua Barat, related islands), absent of Australia or Oriental Region. Because our present knowledge of the Miridae fauna remains limited, these results must nevertheless be analysed with caution.

We provide, mostly for the first time, data about hypothetised host-plants of numerous species (Table 2). The data obtained by light trap (Table 2 part 2) are difficult to interpret. The flight capacity and inclination to flight toward light by individual species is largely unknown, particularly in the tropics, and totally unknown for the Baiteta Forest species. In general, the efficiency of the light trap as the inclination to flight could be species-, sex- and height-dependent (cf. Wheeler 2001: 45). The data obtained by fogging (Table 2 part 1) seem more informative. On the one hand, the majority of species (44/50 i.e. 88%) and the majority of specimens (251/251+155+3 i.e. 61%) were collected, at least partially, by fogging. On the other hand, the origin of the species collected by fogging is very likely the plant (or the plants) submitted to fogging and, we can deduce it is a host for the bug, particularly when numerous specimens of the same species were collected on the same plant during different collection events. Thus, *Chisocheton ceramicus* is presumed to be a host-plant for *Carpinterocoris brailovskyi* gen. nov., sp. nov. Fifteen specimens of the eccritotarsine were collected by fogging on the *Chisocheton* during three different collection events (and just two specimens on *Celtis latifolia* and two on an unknown plant). Even when only one collection event is available, if the number of collected specimens is high, we could consider having relevant indications about host. For example, the presence of 25 *Argenis incisuratus* in a sample from *Dysoxylum patigravianum* is probably not accidental. Unfortunately, the other cases remain more difficult to interpret. In our "Taxonomy" section and in our table 2 we mention all plants as host-plants, even if the feeding and oviposition habits of the studied mirid lack confirmation by direct observation.

The mean number of identified host-plants by Miridae species collected by fogging in Baiteta Forest is slightly greater than 2. Some species of Miridae have up to 7 hypothetised hosts (*Guisardus strigicollis*). This figure could seem high, however several of those species are probably generalist predators and some other could be unspecialised zoophytophagous plant bugs. Generalist predator feeding habits could also explain similar results with light traps, particularly in *Fulvius* species. Some plant species are apparently particularly attractive for mirids: *Neonauclea* sp. harbours 25% of the species collected by fogging, *Chisocheton ceramicus* harbours 18% and *Dysoxylum patigravianum* harbours 16%.

Some mirid species were collected only by fogging (such *Carpinterocoris brailovskyi* gen. nov., sp. nov. or *Garainamiris antennatus*), and others only by light trap (such *Fulvius constanti*, *F. subnitens* or *Prolygus ehannoi* sp. nov.).

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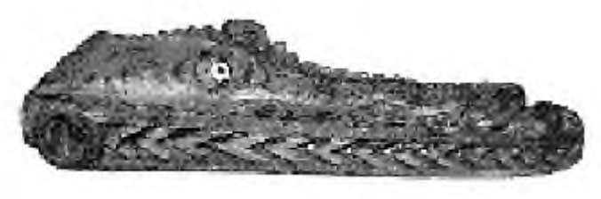

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Appendix:

Table 1. Sampling localities of specimens cited as examined in the work, with their geographical coordinates.

Country	Islands / Region	Department / Province	Locality	S	E	N	O	References (code of)	Remark (code of)
Australia	–	Queensland	Big Mitchell Creeck, Mareeba-Mooly Road	16°48’	145°21’	–	–	2	1
Australia	–	Queensland	Kuranda	16°49’	145°38’	–	–	2	
Australia	New South Wales		Penrith, Norton’s Bassin	33°45’	150°41’	–	–	2	
China (PR)	Hainan		Ta-Han		?	?		–	16
Congo(DR)		Lualaba	Ruwé	10°28’	25°38’	–	–	2	
French Polynesia	Tahiti	Clipperton	Mahina	17°30’	–	–	149°27’	2	
India		Meghalaya	Balpakram NP, Garo Hill	–	90°51’	25°11’	–		
Indonesia	Papua Barat	Cenderawasih, Doberai	Kebar Valley	00°38’	133°07	–	–	2	2
Indonesia	Papua Barat		Bodem, 11 km SE Oerberfaren	02°20’	138°56’	–	–	1, 2, 7	3
Indonesia	Papua Barat		War(r)is, S. of Hollandia	03°13’	140°58’	–	–	2	
Indonesia	Papua Barat		Swart Valley, Karubaka	03°35’	138°30’	–	–	3	
Indonesia	Java (west)		Tjinjiruan, Malabar Gebirge	07°07’	107°39’	–	–	2	4
Indonesia	Moluccas	Kei Kecil	Tual	05°38’	132°44’	–	–	2	5
Indonesia	Moluccas	Morotai	–	–	128°26’	02°19’	–	2	6
Indonesia	Sulawesi	South Sulawesi	Bua-Kraeng	03°04’	120°13’	–	–	4ter	
Indonesia	Moluccas	Ternate		0°48’	127°19’			2	
Ivory Coast			Bingerville	–	–	05°21’	03°53’	2	7
Japan	Honshu	Okayama	Mt. Kenashi, Shinjo	–	133°33’	35°12’	–	2, 12	
Japan	Honshu	Wakayama	Hatenashi	–	135°43’	33°54’	–	2, 12	8
Japan	Honshu	Hiroshima	Geihoku, Kitahiroshima	–	132°31’	34°40’	–	2, 12	
Japan	Honshu	Aomori	Yokouchi-Yaegiku, Aomori	–	140°44’	40°49’	–	2, 12	9
Japan	Ryukyu	Amami-Oshima	Yuwan-Dake, Uken-Son	–	129°19’	28°17’	–	2, 12	
Papua New Guinea	New Britain	Eastern New Britain	Ralum, Matupi, Gazelle Peninsula	04°14’	152°10’	–	–	2	
Papua New Guinea	New Ireland	–	Kandan	03°13’	151°57’	–	–	9	
Papua New Guinea		Central	Bisianumu	08°43’	147°25’	–	–	2	
Papua New Guinea		Central	Moroka	09°25’	147°41’	–	–	5, 6, 8, 13	10
Papua New Guinea		Central	Owen Stanley Range, Golalai, Tapini	08°22’	146°59’	–	–	2	11
Papua New Guinea		East Sepik	Amok	03°35’	142°50’	–	–	3	
Papua New Guinea		East Sepik	Lemien, Berlinhafen	03°14’	142°20’	–	–	2, 4bis, 14	11bis
Papua New Guinea		Eastern Highlands	Iwam Pass, Bismarck Range	05°50’	145°08’	–	–	2	
Papua New Guinea		Madang	Baiteta	05°01’	145°45’	–	–	our data	
Papua New Guinea		Madang	Erima, Astrolabe Bay	05°24’	145°44’	–	–	2	
Papua New Guinea		Madang	Mandy Passage	04°12’	144°55’	–	–	2	12
Papua New Guinea		Madang	Simbai, Bismarck Range	05°12’	144°23’	–	–	6	
Papua New Guinea		Madang, Hansa Bay	Sisimangun village	04°08’	144°50’	–	–	2	
Papua New Guinea		Madang	Wanuma	04°53’	145°18’	–	–	2	
Papua New Guinea		Milne Bay	Alotau	10°18’	150°27’	–	–	2	13
Papua New Guinea		Morobe	Wau	07°20’	146°43’	–	–	7	14
Papua New Guinea		Morobe, Huon Gulf	Bulolo	07°11’	146°38’	–	–	2	
Papua New Guinea		Morobe, Huon Gulf	Finschhafen	06°36’	147°51’	–	–	2	
Papua New Guinea		Morobe, Huon Gulf	Mt. Kaindi	07°21’	146°40’	–	–	2, 7	
Papua New Guinea		Morobe, Huon Gulf	Sattelberg	06°29’	147°45’	–	–	2	
Papua New Guinea		Morobe, Huon Gulf	Simbang	06°34’	147°50’	–	–	2	
Papua New Guinea		Northern	Biniguni	09°38’	149°18’	–	–	2	
Papua New Guinea		Northern	Eliptamin	05°02’	141°40’	–	–	2	
Papua New Guinea		Northern	Kokoda	08°53’	147°45’	–	–	7	
Papua New Guinea		Northern	Lamington Mt	08°55’	148°09’	–	–	2	
Papua New Guinea		Northern	Pitoki, Kokoda	08°54’	147°44’	–	–	2, 7	
Papua New Guinea		Southern Highlands	Kepilam	03°13’	142°40’	–	–	10	
Papua New Guinea		Western	Kiunga	06°04’	141°18’	–	–	2	
Papua New Guinea	Woodlark	Milne Baa	Kulumadau	09°05’	152°42’	–	–	2	
Philippines	Luçon	Ifugao	Liwo, 8 km E. Mayoyao	–	121°15’	16°58’	–	2	
Philippines	Luçon	Laguna	Los Baños	–	121°12’	14°10’	–	2	15
Philippines	Negros		Camp Lookout, Dunagete	–	?	?	–	–	16
Seychelles	Mahé	Mt. Fleuri	Mt. Fleuri	04°38’	55°37’	–	–	2	
Seychelles	Praslin		Praslin	04°19’	55°41’		–	2	
Sri Lanka		Kanda Ela	Reservoir, 5-6 min S.O. Nuwara Elyia	–	80°45’	06°57’	–	2	
Sri Lanka			Maskelyia	–	80°34’	06°50’	–	2	
Sri Lanka			Peradenyia	–	80°36’	07°15’	–	2	
Sri Lanka			Ohyia		80°49’	06°49’		2	
Sri Lanka			Uva	–	81°14’	06°57’	–	2	
Tanzania			Langenburg	10°28’	34°35’	–	–	11	17
Thailand			Bangkok	–	100°28’	13°43’	–	2	18
Vietnam		Lang Son	Mau So’n Mountains	–	106°53’	21°50’	–	2	19

References to the Table 1 of the Appendix: 1: Gentili (1980: 391); 2: Google Earth; 3: Kohout (2007: 233); 4: Kraus & Allisson (2006: 204); 4bis: Lucky & Sarnat (2008: 38, table 1); 4ter: Melder (1999: 10, table 1); 5: So (2000: 430); 6: Tan et al. (2005: 232); 7: Van Doesburg (2004: Appendix, pp. 108-110); 8: Zimmerman (1967: 192) [all papers available online]; 9: according to http://www.keskeces.com/villes/papouasie/new-ireland/kandan.htm ; 10: according to http://ww2.bgbm.org/herbarium/Access.cfm?Col=4&IsoCode=all& Fam=MARATTIACEAE&SubColl=Farnherbar&Genus= all&FullNameCache=all; 11: according to Pesenko & Pauly (2005: 154) and Pauly in http://www.atlashymenoptera.net/page.asp?id=94; 12: personal information from T. Yasunaga. 13: personal information from D. Polhemus. 14. Setliff (2007: 289-296) provides several maps and lists including some mountains, mountains ranges and localities from Irian Jaya and Papua New Guinea, with several old names (unfortunately, lacking of accurate coordinates).

Remarks: 1: values for Big Mitchell Creeck Reserve; 2: Approximate values, corresponding to Kebar; 3: Doubtful coordinates. The labels bear “Nete (probably an abbreviation for Netherlands), Vogelkop, Boden (or Bodem), 11km south-east of Oberfaren (or Oerberfaren or Orberfaeren)”. Identification of this place is uneasy. The coordinates for Bodem (01°58’S, 138°54’E) according to Gentili (1980: 391), confirmed by Van Doesburg (2004: 108), do not correspond to the Vogelkop Peninsula (130°36’S – sic! -, 134°14’E according to Van Doesburg, op. cit.: 110; indicated by Setliff, op. cit. on his third map, p. 294, number 14) but to the northern coast of mainland Papua Barat (= Irian Jaya) and the coordinates given by Van Doesburg (2004: 109) for Oerberfaren (02°16’S, 138°50’) do not put this last place to eleven kilometres of (his) Bodem. According to D. Polhemus (in litt.), Oberfaren could be somewhere in the hills south of Lake Sentani (about 02°36’S, 140°33’E) that extend to the eastern flanks of the Mamberamo Basin, near Jayapura; 4: Approximate values for Malabar volcano near Malabar town; 5: Approximate values: Tual is a town of Tual Islands used as reference, because the label only give the following information, difficult to interpret: “Key Tual”. Maybe “Key” corresponds to cities of “Kai Ketjil” or “Kai Dulah”, each in different parts of the island; 6: Approximate values: the label provided only the island name; 7: Approximate values: Bingerville is relatively large city; 8: Approximate value for Hatenashi-sammyakuhe. The Hatenashi mountains range consisting of Wada forest (1049m), Mt. Ando (1183.7m), Mt. Kuroo (1235m), Mt. Hiyamizu (1269.9m) and Mt. Ishijiriki (1139.5m); 9: Approximate values for Aomori city; 10: Specimens collected by Lamberto Loria (1855-1913), an Italian ethnologist and explorer, at Moroka are very frequently cited, however the place is surprisingly difficult to identify. Zimmerman (1967: 192), undecided, wrote “There is a note on a “cotype” [of *Imathia brevis*, a Curculionidae] examined that states that Moroka is in SE New Guinea, and S. Dillon Ripley has told me that it is possible that this is a locality on a trail that extends from Port Moresby to the north coast of Papua”. Both So (2000: 430) and Tan et al. (2005: 232) included Moroka in the “Moresby Province”, but they gave no reference or coordinates. Fortunately, Kraus & Allisson (2006: 204) are more accurate, but their coordinates could differ from Loria’s collecting place, the altitude given on the labels of insects collected by Loria is 1300m, but the altitude corresponding to Kraus & Allisson’s coordinates is only 300 m. According to D. Polhemus (in litt.), “Moroka lies at 09°25’S, 147°41’E. Loria collected here for the Genoa Museum from July to September 1893”. The altitude of this area ranges between 300 and 400m. Consequently, the altitude cited on the label could be wrong; 11: Approximate values: values of Tapini; 11bis: approximate values for Aitape (= Berlinhafen), not for Lemien Forest; 12: Approximate values corresponding to the sea passage; 13: Approximate values, Alotau being a city; 14: The coordinates for Wau according to Van Doesburg (2004: 110). Amazingly, by default, Google Earth gives another (smaller) Wau; 15: Approximate values, Los Baños being a relatively large city. 16: unidentified place. 17: Tanzania, shore of Lake Malawi, for additional information cf. text, footnote number 9. 18: approximate values, Bangkok being a large city. 19: Approximate value.

Table 2 part 1. Number of specimens of Miridae species collected by fogging on each plant in Baiteta Forest with statistics.

	Moraceae	Moraceae	Anacardiaceae	Ulmaceae	Ulmaceae	Meliaceae	Meliaceae	Anacardiaceae	Meliaceae	Moraceae	Moraceae	Burseraceae	Liliaceae	Rubiaceae	Fabaceae	Sapindaceae	Rubiaceae	Elaeocarpaceae	Elaeocarpaceae	Myrtaceae	Combretaceae	Flacourtiaceae	Sapindaceae			Unknown	
	cf. *Artrocarpus* sp.	*Artrocarpus incisus*	*Buchaniana heterophylla*	*Celtis latifolia*	*Celtis philippinensis*	*Chisocheton ceramicus*	*Chisocheton welandia*	*Dracontomelum dao*	*Dysoxylum patigravianum*	*Ficus polyantha*	*Ficus* sp.	*Haphlobus* sp.	*Litsea irianensis*	*Neonauclea* sp.	*Piteleocarpus indicus*	*Pometia pinnata*	*Sarcocephalus* sp.	*Sloanea forbesii*	*Sloanea sogeriensis*	*Syzigium* sp.	*Terminalia sepikana*	*Trichadenia philippinensis*	*Tristiropsis acutangula*	Unknown	Total number	Percent by fogging	Number of cited identified plants by Miridae species
Adelphocorisella brunnescens	0	0	0	0	0	0	1	0	0	0	0	0	0	2	7	0	0	0	0	0	0	0	1	3	14	82	4
Apolygus sp.	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	1
Araspus gressitti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	50	0
Argenis incisuratus	0	2	0	0	1	2	0	3	25	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	38	69	6
Aristopeplus imperialis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baitetacoris turschi	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	100	2
Bakeriola sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Bertsa lankana	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20	1
Bironiella metallescens	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	100	1
Bironiella ruberonotata	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Bothriomiris sp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Bromaeliaemiris morobensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bryocorellisca pilosa	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	100	2
Carpinterocoris brailovsky	0	0	0	3	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19	100	2
Cylapofulvius punctatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diognetus intonsus	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1
Eurystylus costalis	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0	6	67	2
Eurystylus sp. 2 near *minutus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Fingulus novobritanicus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fingulus sp.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	100	1
Fulvius constanti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fulvius nigricornis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Fulvius pallidus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fulvius stysi	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	100	1
Fulvius subnitens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	11	1
Fulvius variegatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Garainamiris antennatus	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	12	100	3
Guisardinus papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Guisardus strigicollis	0	0	0	0	1	1	0	7	0	0	1	0	0	0	0	3	0	0	0	0	0	0	6	34	53	54	6
Harpedona gressitti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	100	1
Hyalopeplinus papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11	100	1
Hyalopeploides cyanescens	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1
Hyalopeplus similis	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	63	1
Imogen bicolor	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Imogen fasciatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imogen papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	100	1

Table 2 part 1 (continued)

	Moraceae	Moraceae	Anacardiaceae	Ulmaceae	Ulmaceae	Meliaceae	Meliaceae	Anacardiaceae	Meliaceae	Moraceae	Moraceae	Burseraceae	Liliaceae	Rubiaceae	Fabaceae	Sapindaceae	Rubiaceae	Elaeocarpaceae	Elaeocarpaceae	Myrtaceae	Combretaceae	Flacourtiaceae	Sapindaceae			Unknown	
	cf. Artrocarpus sp.	*Artrocarpus incisus*	*Buchaniana heterophylla*	*Celtis latifolia*	*Celtis philippinensis*	*Chisocheton ceramicus*	*Chisocheton welandia*	*Dracontomelum dao*	*Dysoxylum patigravianum*	*Ficus polyantha*	*Ficus* sp.	*Haplolobus* sp.	*Litsea irianensis*	*Neonauclea* sp.	*Piteleocarpus indicus*	*Pometia pinnata*	*Sarcocephalus* sp.	*Sloanea forbesii*	*Sloanea sogeriensis*	*Syzigium* sp.	*Terminalia sepikana*	*Trichadenia philippinensis*	*Tristiropsis acutangula*	Unknown	Total number	Percent by fogging	Number of cited identified plants by Miridae species
"Lygus" incertae sedis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	100	0
Missacoris sigwaltae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Nabireocoris minutus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Palaucoris novaguineae	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	100	1
Peritropis graziae	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Peritropis sulawesica	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	0	0	1	7	88	2
Prodromus oculatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prolygus ehannoi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prolygus erimensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prolygus cf. *femoralis*	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	5	19	2
Prolygus polhemusorum	0	0	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	83	2
Sabactiopus zhengi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Tinginotopsis camelus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	100	0
Tinginotum knowlesi	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	40	2
Vanniusoides brevis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	100	1
Warrisia huonensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waucoris keyensis	0	0	0	1	0	0	0	0	2	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12	100	3
Waucoris longipes	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Waucoris papuanus	0	0	0	0	0	0	0	0	1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	9	90	2
Waucoris wauensis	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	100	1
Total number of Miridae specimens by plant	1	11	0	6	9	25	2	15	32	1	9	1	1	42	7	3	2	0	1	0	0	0	20	63	251		
Percent of the total Miridae specimens collected by fogging found on each plant	0.4	4.4	0	2.4	3.6	10	0.8	6	13	0.4	3.6	0.4	0.4	17	2.8	1.2	0.8	0	0.4	0	0	0	8	25	100		
Percent for all methodologies	0.2	2.7	0	1.5	2.2	6.1	0.5	3.7	7.9	0.2	2.2	0.2	0.2	10	1.7	0.7	0.5	0	0.2	0	0	0	4.9	15	62		
Total number of Miridae species by plant	1	4	0	3	5	7	2	3	7	1	4	1	1	10	1	1	2	0	1	0	0	0	6				
Percent of the total Miridae species collected by fogging found on each plant	2.3	9.1	0	6.8	11	16	4.5	6.8	16	2.3	9.1	2.3	2.3	23	2.3	2.3	4.5	0	2.3	0	0	0	14				

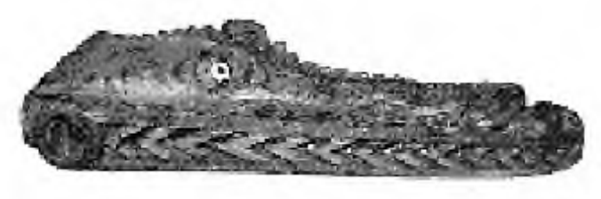


Table 2 part 2. Number of specimens of Miridae species collected by light trap on each plant in Baiteta Forest with statistics.

	Moraceae	Anacardiaceae	Ulmaceae	Ulmaceae	Meliaceae	Meliaceae	Anacardiaceae	Meliaceae	Moraceae	Moraceae	Burseraceae	Liliaceae	Rubiaceae	Sapindaceae	Combretaceae	Flacourtiaceae	Sapindaceae	Unknown			
	cf. *Artrocarpus* sp.	*Buchaniana heterophylla*	*Celtis latifolia*	*Celtis philippinensis*	*Chisocheton ceramicus*	*Chisocheton welandia*	*Dracontomelum dao*	*Dysoxylum patigravianum*	*Ficus polyantha*	*Ficus* sp.	*Haphlobus* sp.	*Litsea irianensis*	*Neonauclea* sp.	*Pometia pinnata*	*Terminalia sepikana*	*Trichadenia philippinensis*	*Tristiropsis acutangula*	Unknown	Total number	Percent by light trap	Number of cited identified plants
Adelphocorisella brunnescens	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	3	18	3
Apolygus sp.	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	1	5	83	2
Araspus gressitti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Argenis incisuratus	0	0	0	0	0	0	11	0	0	0	0	0	0	5	0	0	0	1	17	31	2
Aristopeplus imperialis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Baitetacoris turschi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bakeriola sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bertsa lankana	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	4	80	2
Bironiella metallescens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bironiella ruberonotata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bothriomiris sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bromaeliaemiris morobensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	100	1
Bryocorellisca pilosa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carpinterocoris brailovsky	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cylapofulvius punctatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diognetus intonsus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eurystylus costalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	33	0
Eurystylus sp. 2 near *minutus*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fingulus novobritanicus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	100	0
Fingulus sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fulvius constanti	0	0	0	2	0	0	3	0	0	1	0	0	0	0	0	1	0	1	8	100	4
Fulvius nigricornis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fulvius pallidus	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	100	2
Fulvius stysi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fulvius subnitens	0	0	0	2	0	0	3	0	0	1	0	0	0	0	0	1	0	1	8	89	4
Fulvius variegatus	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	3	100	2
Garainamiris antennatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guisardinus papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guisardus strigicollis	0	0	0	4	20	0	1	0	0	0	0	0	0	0	0	0	0	21	46	46	3
Harpedona gressitti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hyalopeplinus papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hyalopeploides cyanescens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hyalopeplus similis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	38	0
Imogen bicolor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imogen fasciatus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Imogen papuensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
“Lygus” incertae sedis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Missacoris sigwaltae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nabireocoris minutus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Palaucoris novaguineae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peritropis graziae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peritropis sulawesica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	13	0
Prodromus oculatus	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Prolygus ehannoi.	0	2	0	1	3	0	1	0	0	0	0	0	0	5	0	0	0	0	12	100	5
Prolygus erimensis	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Prolygus cf. *femoralis*	0	0	0	1	4	0	2	0	0	0	0	0	0	7	1	0	0	6	21	81	5
Prolygus polhemusorum	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	1
Sabactiopus zhengi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tinginotopsis camelus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tinginotum knolwesi	0	0	0	0	1	0	0	0	0	0	0	0	0	6	0	0	0	2	9	60	2
Vanniusoides brevis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warrisia huonensis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	100	1
Waucoris keyensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waucoris longipes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waucoris papuanus	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	10	1
Waucoris wauensis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of Miridae specimens by plant	0	2	0	12	31	0	26	1	0	2	0	0	0	30	2	3	0	44	153		
Percent by catching methodology	0	1.31	0	7.843	20.26	0	17	0.7	0	1.3	0	0	0	20	1.3	2	0	29	100		
Percent for all methodologies	0	0.49	0	2.948	7.617	0	6.39	0.2	0	0.5	0	0	0	7.4	0.5	0.7	0	11	38		
Total number of Miridae species by plant	0	1	0	7	7	0	11	1	0	2	0	0	0	8	2	3	0				
Percent by catching methodology	0	4.35	0	30.43	30.43	0	47.8	4.3	0	8.7	0	0	0	35	8.7	13	0				

Table 2 part 3. Number of specimens of Miridae species collected by sweeping or by an unknown methodology on each plant in Baiteta Forest with statistics.

	Elaeocarpaceae					Elaeocarpaceae					Elaeocarpaceae			
	Sloanea sogeriensis	Unknown	Total number	Percent by sweeping or by unknown methodology		*Sloanea sogeriensis*	Unknown	Total number	Percent by sweeping or by unknown methodology		*Sloanea sogeriensis*	Unknown	Total number	Percent by sweeping or by unknown methodology
Adelphocorisella brunnescens	0	0	0	0	*Eurystylus cf minutus*	0	0	0	0	*Imogen fasciatus*	0	1	1	100
Apolygus sp.	0	0	0	0	*Fingulus novobritanicus*	0	0	0	0	*Imogen papuensis*	0	0	0	0
Araspus gressitti	1	0	1	50	*Fingulus* sp.	0	0	0	0	*"Lygus" incertae sedis*	0	0	0	0
Argenis incisuratus	0	0	0	0	*Fulvius constanti*	0	0	0	0	*Missacoris sigwaltae*	0	0	0	0
Aristopeplus imperialis	0	0	0	0	*Fulvius nigricornis*	0	0	0	0	*Nabireocoris minutus*	0	0	0	0
Baitetacoris turschi	0	0	0	0	*Fulvius pallidus*	0	0	0	0	*Palaucoris novaguineae*	0	0	0	0
Bakeriola sp.	0	0	0	0	*Fulvius stysi*	0	0	0	0	*Peritropis graziae*	0	0	0	0
Bertsa lankana	0	0	0	0	*Fulvius subnitens*	0	0	0	0	*Peritropis sulawesica*	0	0	0	0
Bironiella metallescens	0	0	0	0	*Fulvius variegatus*	0	0	0	0	*Prodromus oculatus*	0	0	0	0
Bironiella ruberonotata	0	0	0	0	*Garainamiris antennatus*	0	0	0	0	*Prolygus ehannoi*	0	0	0	0
Bothriomiris sp	0	0	0	0	*Guisardinus papuensis*	0	0	0	0	*Prolygus erimensis*	0	0	0	0
Bromeliaemiris morobensis	0	0	0	0	*Guisardus strigicollis*	0	0	0	0	*Prolygus* cf. *femoralis*	0	0	0	0
Bryocorellisca pilosa	0	0	0	0	*Harpedona gressitti*	0	0	0	0	*Prolygus polhemusorum*	0	0	0	0
Carpinterocoris brailovsky	0	0	0	0	*Hyalopeplinus papuensis*	0	0	0	0	*Sabactiopus zhengi*	0	0	0	0
Cylapofulvius punctatus	0	1	1	100	*Hyalopeploides cyanescens*	0	0	0	0	*Tinginotopsis camelus*	0	0	0	0
Diognetus intonsus	0	0	0	0	*Hyalopeplus similis*	0	0	0	0	*Tinginotum knowlesi*	0	0	0	0
Eurystylus costalis	0	0	0	0	*Imogen bicolor*	0	0	0	0	*Vanniusoides brevis*	0	0	0	0

Table 2 part 3 (continued). Number of specimens of Miridae species collected by sweeping or by an unknown methodology on each plant in Baiteta Forest with statistics.

	Elaeocarpaceae			
	Sloanea sogeriensis	Unknown	Total number	Percent by sweeping or by unknown methodology
Warrisia huonensis	0	0	0	0
Waucoris keyensis	0	0	0	0
Waucoris longipes	0	0	0	0
Waucoris papuanus	0	0	0	0
Waucoris wauensis	0	0	0	0
Total number of Miridae specimens by host plant	1	2	3	
Percent by catching methodology	33.3	66.7	100	
Percent for all methodologies	0.25	0.49	0.737	
Total number of Miridae species by host plant	1			
Percent by catching methodology	33.3			
Total number of Miridae species by catching method	1			
Percent for all methodologies	1.49			

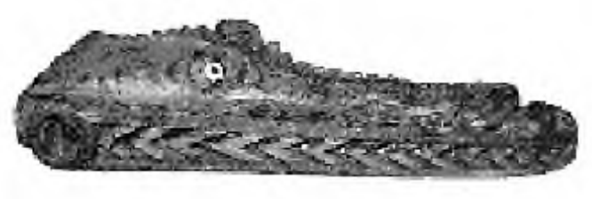


Table 3. List of Bryocorinae, Cylapinae, Deraeocorinae and Mirinae from Papua New Guinea.

Legends: * – species cited from Papua New Guinea for the first time; **bold** – species present in Baiteta Forest samples; all taxa are arranged alphabetically.

Abbreviations of authors: C. – Carvalho; S. & Ca. – Stonedahl & Cassis; Sch. in Ch. – Schwartz, Chérot et Malipatil in Chérot, Malipatil et Schwartz; ** – sensu Carvalho & Lorenzato 1978.

Subfamily	Tribe	Species
Bryocorinae	Bryocorini	*Hekista albicollaris* C., 1981a
Bryocorinae	Bryocorini	*Hekista papuensis* C., 1981a
Bryocorinae	Bryocorini	*Hekista similaris* C., 1981a
Bryocorinae	Bryocorini	*Monalocoris nigrus* C., 1981a
Bryocorinae	Bryocorini	*Monalocoris pallipes* C., 1981a
Bryocorinae	Eccritotarsini	*Ambunticoris nigroemboliatus* C., 1981a
Bryocorinae	Eccritotarsini	*Ambunticoris ochraceus* C., 1981a
Bryocorinae	Eccritotarsini	*Bromeliaemiris fasciatus* (Ghauri, 1975)
Bryocorinae	Eccritotarsini	*Bromeliaemiris gressitti* C., 1981a
Bryocorinae	Eccritotarsini	**_Bromeliaemiris morobensis_ C., 1981a**
Bryocorinae	Eccritotarsini	*Bromeliaemiris rubrinus* C., 1981a
Bryocorinae	Eccritotarsini	*Bryocorellisca novaguineae* C., 1981a
Bryocorinae	Eccritotarsini	*Bryocorellisca pallidoemboliata* C., 1981a
Bryocorinae	Eccritotarsini	**_Bryocorellisca pilosa_ C., 1981a**
Bryocorinae	Eccritotarsini	*Carinimiris lustrosus* C., 1981a
Bryocorinae	Eccritotarsini	**_Carpinterocoris brailovskyi_ gen. nov., sp. nov. ***
Bryocorinae	Eccritotarsini	*Crassiembolius nigrus* C., 1981a
Bryocorinae	Eccritotarsini	*Crassiembolius semipallidus* C., 1981a
Bryocorinae	Eccritotarsini	*Cuneomiris elongatus* C., 1981a
Bryocorinae	Eccritotarsini	*Fronsimiris fossatus* C., 1981a
Bryocorinae	Eccritotarsini	*Fronsimiris nigrifrons* C., 1981a
Bryocorinae	Eccritotarsini	*Fronsimiris obtusifrons* C., 1981a
Bryocorinae	Eccritotarsini	**_Harpedona gressitti_ Stonedahl, 1988b**
Bryocorinae	Eccritotarsini	*Harpedona laensis* Stonedahl, 1988b
Bryocorinae	Eccritotarsini	*Harpedona marginata* Distant, 1904c
Bryocorinae	Eccritotarsini	*Harpedona plana* (Poppius, 1912e)
Bryocorinae	Eccritotarsini	*Harpedona verticicolor* C., 1981a
Bryocorinae	Eccritotarsini	*Harpedona wau* Stonedahl, 1988b
Bryocorinae	Eccritotarsini	*Hemisphaerocoris puncticollis* Poppius, 1912e
Bryocorinae	Eccritotarsini	**_Nabirecoris minutus_ C., 1981a**
Bryocorinae	Eccritotarsini	*Palaeofurius cyclopensis* C., 1981
Bryocorinae	Eccritotarsini	*Palaeofurius nigroemboliatus* C., 1981
Bryocorinae	Eccritotarsini	*Palaeofurius sagittatus* Poppius, 1912e
Bryocorinae	Eccritotarsini	*Prodromus nigrus* (C., 1981)
Bryocorinae	Eccritotarsini	*Prodromus novoguinensis* Stonedahl, 1988
Bryocorinae	Eccritotarsini	**_Prodromus oculatus_ (Poppius, 1912e)**
Bryocorinae	Eccritotarsini	*Stenopterocorisca viridis* C., 1981a
Bryocorinae	Eccritotarsini	*Taricoris gressitti* C., 1981a
Bryocorinae	Eccritotarsini	*Taricoris wauensis* C., 1981

Table 3 (continued)

Bryocorinae	Eccritotarsini	*Thaumastomiris discoidalis* Poppius, 1912e
Bryocorinae	Felisacini	*Felisacus dauloi* Woodward, 1958
Bryocorinae	Felisacini	*Felisacus magnificus* Distant, 1904c
Bryocorinae	Felisacini	*Felisacus minutus* C., 1981a
Bryocorinae	Felisacini	*Felisacus nigrescens* C., 1981a
Bryocorinae	Felisacini	*Felisacus nigricornis* Poppius, 1912e
Bryocorinae	Felisacini	*Felisacus ochraceus* Usinger, 1946
Bryocorinae	Monaloniini	*Helopeltis clavifer* (Walker, 1873)
Bryocorinae	Monaloniini	*Mansoniella minuta* C., 1981a
Bryocorinae	Monaloniini	*Pachypeltis annulipes* Poppius, 1912e
Bryocorinae	Monaloniini	*Pachypeltis marginalis* Poppius, 1912e
Bryocorinae	Monaloniini	*Ragwelellus bismarckensis* C. et Wallerstein, 1979
Bryocorinae	Monaloniini	*Ragwelellus festivus* (Miller, 1955)
Bryocorinae	Monaloniini	*Ragwelellus gressitti* C. et Wallerstein, 1979
Bryocorinae	Monaloniini	*Ragwelellus horvathi* (Poppius, 1912e)
Bryocorinae	Monaloniini	*Ragwelellus luteonotatus* C., 1981a
Bryocorinae	Monaloniini	*Ragwelellus magnificus* C., 1981a
Bryocorinae	Monaloniini	*Ragwelellus morobensis* C., 1981a
Bryocorinae	Monaloniini	*Ragwelellus nigrus* C., 1981a
Bryocorinae	Monaloniini	*Ragwelellus similis* C., 1981
Bryocorinae	Monaloniini	*Ragwelellus szentivanyi* C. et Wallerstein, 1979
Bryocorinae	Monaloniini	*Ragwelellus wauensis* C., 1981a
Bryocorinae	Monaloniini	*Pseudodoniella pacifica* China et C., 1951
Bryocorinae	Monaloniini	*Pseudodoniella typica* (China et C., 1951)
Cylapinae	Bothriomirini	*Bothriomiris lugubris* (Poppius, 1915b) **
Cylapinae	Cylapini	*Cylapomorpha pacifica* C., 1956
Cylapinae	Fulviini	*Bironiella binotata* C. et Lorenzato, 1978
Cylapinae	Fulviini	***Bironiella metallescens* Poppius, 1909**
Cylapinae	Fulviini	***Bironiella rubernotata* C. et Lorenzato, 1978**
Cylapinae	Fulviini	*Bironiella trinotata* C. et Lorenzato, 1978
Cylapinae	Fulviini	***Cylapofulvius punctatus* Poppius, 1909**
Cylapinae	Fulviini	*Fulvius bimaculatus* Poppius, 1909
Cylapinae	Fulviini	*Fulvius carvalhoi* Gorczyca, 2000
Cylapinae	Fulviini	***Fulvius constanti* Gorczyca, 2004**
Cylapinae	Fulviini	***Fulvius nigricornis* Poppius, 1909**
Cylapinae	Fulviini	***Fulvius pallidus* Poppius, 1909**
Cylapinae	Fulviini	***Fulvius stysi* Chérot et Gorczyca, 2008**
Cylapinae	Fulviini	***Fulvius subnitens* Poppius, 1909**
Cylapinae	Fulviini	***Fulvius variegatus* Poppius, 1909**
Cylapinae	Fulviini	*Mycetocylapus pacificus* C., 1956
Cylapinae	Fulviini	*Peritropis annulicornis* Poppius, 1909
Cylapinae	Fulviini	***Peritropis graziae* sp. nov. ***
Cylapinae	Fulviini	*Peritropis punctatus* C. et Lorenzato, 1978
Cylapinae	Fulviini	***Peritropis sulawesica* Gorczyca, 2006 ***
Cylapinae	Fulviini	*Peritropisca bituberculata* C. et Lorenzato, 1978
Cylapinae	Fulviini	*Teratofulvioides punctatus* C. et Lorenzato, 1978

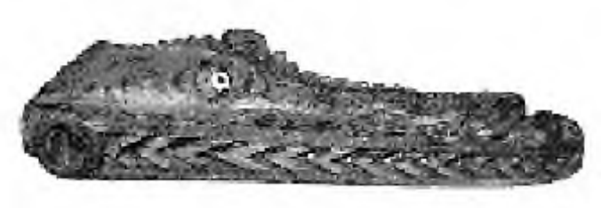


Table 3 (continued)

Cylapinae	Fulviini	*Umboiella antennata* C., 1981c
Cylapinae	Vaniini	*Palaucoris biroi* C., 1984c
Cylapinae	Vaniini	*Palaucoris clypeatus* C., 1984c
Cylapinae	Vaniini	***Palaucoris novaguineae* (Ghauri, 1975)**
Cylapinae	Vaniini	***Vanniusoides brevis* (Poppius, 1909)**
Deraeocorinae	Deraeocorini	*Araspus bifasciatus* C., 1984a
Deraeocorinae	Deraeocorini	*Araspus fronsipallidus* C., 1984a
Deraeocorinae	Deraeocorini	***Araspus gressitti* C., 1984a**
Deraeocorinae	Deraeocorini	*Araspus maai* C., 1984 a
Deraeocorinae	Deraeocorini	*Araspus nigrus* C., 1984a
Deraeocorinae	Deraeocorini	*Araspus notomaculatus* C., 1984a
Deraeocorinae	Deraeocorini	*Araspus parcepunctatus* Poppius, 1912b
Deraeocorinae	Deraeocorini	*Araspus partilus* (Walker, 1873b)
Deraeocorinae	Deraeocorini	*Araspus scutellaris* Poppius, 1912b
Deraeocorinae	Deraeocorini	*Araspus trapezinotus* C., 1984a
Deraeocorinae	Deraeocorini	*Araspus wauensis* C., 1984a
Deraeocorinae	Deraeocorini	***Baitatacoris turschi* gen. nov., sp. nov. ***
Deraeocorinae	Deraeocorini	*Deraeocoris biroi* Poppius, 1915a
Deraeocorinae	Deraeocorini	*Deraeocoris cribratoides* C., 1957
Deraeocorinae	Deraeocorini	*Deraeocoris finisterrensis* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris gagnei* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris gorokensis* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris gressitti* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris kaitakiensis* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris membranalis* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris morobensis* C., 1985
Deraeocorinae	Deraeocorini	*Deraeocoris wauensis* C., 1985
Deraeocorinae	Deraeocorini	*Fingulus angusticuneatus* S. et Ca., 1991
Deraeocorinae	Deraeocorini	*Fingulus gressitti* S. et Ca., 1991
Deraeocorinae	Deraeocorini	***Fingulus novobritanicus* S. et Ca., 1991**
Deraeocorinae	Deraeocorini	*Gressitticoris sedlaceki* (C., 1985)
Deraeocorinae	Deraeocorini	*Karimuicoris pronotalis* (C., 1985)
Deraeocorinae	Deraeocorini	*Karubacoris translucidus* C., 1985
Deraeocorinae	Deraeocorini	***Missacoris sigwaltae* gen. nov., sp. nov .***
Deraeocorinae	Deraeocorini	*Morobemiris giluwensis* C., 1985
Deraeocorinae	Deraeocorini	*Papuacoris colocasiae* (Poppius, 1915a)
Deraeocorinae	Deraeocorini	*Papuacoris ottoensis* C., 1985
Deraeocorinae	Deraeocorini	*Papuacoris pallidiceps* (Poppius, 1915a)
Deraeocorinae	Deraeocorini	*Papuacoris papuanus* (Poppius, 1915a)
Deraeocorinae	Deraeocorini	*Papuacoris vittatus* (Reuter, 1908)
Deraeocorinae	Deraeocorini	*Rotundomiris punctatus* C., 1981b
Deraeocorinae	Saturniomirini	*Cheesmaniella clavonigra* C., 1984
Deraeocorinae	Saturniomirini	*Cheesmaniella fasciata* C., 1984
Deraeocorinae	Saturniomirini	*Cheesmaniella nigra* C., 1984
Deraeocorinae	Saturniomirini	*Cheesmaniella notomaculata* C., 1984
Deraeocorinae	Saturniomirini	***Garainamiris antennatus* C., 1981b**

Table 3 (continued)

Deraeocorinae	Saturniomirini	***Imogen bicolor* (Poppius, 1912b)**
Deraeocorinae	Saturniomirini	***Imogen fasciatus* C., 1983**
Deraeocorinae	Saturniomirini	*Imogen formosa* Kirkaldy, 1905
Deraeocorinae	Saturniomirini	***Imogen papuensis* C., 1983**
Deraeocorinae	Saturniomirini	*Saturniomiris lugens* (Walker, 1873b)
Mirinae	Hyalopeplini	***Guisardinus neoguineanus* C. in C. et Gross, 1979**
Mirinae	Hyalopeplini	***Guisardus strigicollis* (Poppius, 1912a)**
Mirinae	Hyalopeplini	***Hyalopeplinus papuensis* C. in C. et Gross, 1979**
Mirinae	Hyalopeplini	***Hyalopeploides cyanescens* Poppius, 1912a**
Mirinae	Hyalopeplini	*Hyalopeploides maculatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeploides neoguineanus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeploides ochraeus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeploides rubriniscus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeploides rubrinoides* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeploides trinotatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeplus cuneatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeplus kandanensis* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeplus loriae* Poppius, 1912a
Mirinae	Hyalopeplini	*Hyalopeplus nigrifrons* (Hsiao, 1944)
Mirinae	Hyalopeplini	*Hyalopeplus nigroscutellatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeplus rubroclavatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	*Hyalopeplus rubrojugatus* C. in C. et Gross, 1979
Mirinae	Hyalopeplini	***Hyalopeplus similis* Poppius, 1912c**
Mirinae	Mecistoscelini	*Mecistoscelis nigrosignatus* Poppius, 1911d
Mirinae	Mirini	***Adelphocorisella brunnescens* (Poppius, 1915a)**
Mirinae	Mirini	***Argenis incisuratus* (Walker, 1873b) ***
Mirinae	Mirini	*Argenis pericarti* Chérot, 1997
Mirinae	Mirini	***Aristopeplus imperialis* Poppius, 1912a**
Mirinae	Mirini	*Aristopeplus regalis* Poppius, 1912a
Mirinae	Mirini	*Aristopeplus rubronotus* C. et Wallerstein, 1977
Mirinae	Mirini	***Bertsa lankana* (Kirby, 1891) ***
Mirinae	Mirini	*Bispinocoris castaneus* C., 1977
Mirinae	Mirini	*Bispinocoris ottoensis* C., 1988
Mirinae	Mirini	*Creontiades novaeguineae* Poppius, 1915a
Mirinae	Mirini	***Diognetus intonsus* Distant, 1904c ***
Mirinae	Mirini	***Eurystylus costalis* Stål, 1871 ***
Mirinae	Mirini	*Eurystylus reuteri* Poppius, 1911a
Mirinae	Mirini	*Ialibua brandti* C., 1986c
Mirinae	Mirini	*Ialibua gressitti* C., 1986c
Mirinae	Mirini	*Ialibua maai* C., 1986c
Mirinae	Mirini	*Ialibua nigriclava* C., 1986c
Mirinae	Mirini	*Ialibua rubrovenosa* C., 1986c
Mirinae	Mirini	*Ialibua sedlaceki* C., 1986c
Mirinae	Mirini	*Ialibua unicolor* C., 1986c
Mirinae	Mirini	*Ialibua viridicollis* C., 1986c
Mirinae	Mirini	*Kraussmiris nigrus* C., 1986a

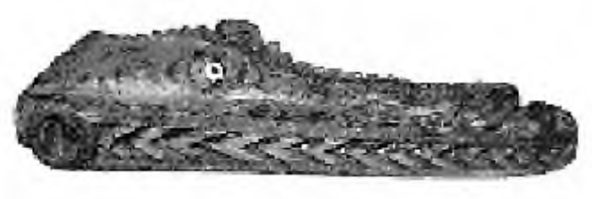


Table 3 (continued)

Mirinae	Mirini	*Macrolygus rubrus* (C., 1987)
Mirinae	Mirini	*Macropeplus brunnescens* Poppius, 1912a
Mirinae	Mirini	*Megacoelum papuanum* Poppius, 1915a
Mirinae	Mirini	*Miridius rubrolineatus* (Poppius, 1912c)
Mirinae	Mirini	*Moroca chuavea* C., 1986d
Mirinae	Mirini	*Moroca elongata* C., 1986d
Mirinae	Mirini	*Moroca fasciata* C., 1986d
Mirinae	Mirini	*Moroca giluwensis* C., 1986d
Mirinae	Mirini	*Moroca karubaka* C., 1986d
Mirinae	Mirini	*Moroca lineaticolle* Poppius, 1912^{a}
Mirinae	Mirini	*Moroca morobensis* C., 1986d
Mirinae	Mirini	*Moroca nigriclava* C., 1986d
Mirinae	Mirini	*Moroca ottoana* C., 1986d
Mirinae	Mirini	*Moroca rubescens* C., 1986d
Mirinae	Mirini	*Moroca simillima* C., 1986d
Mirinae	Mirini	*Moroca trilineata* C., 1986d
Mirinae	Mirini	*Moroca unicolor* C., 1986d
Mirinae	Mirini	*Moroca verticillata* C., 1986d
Mirinae	Mirini	*Moroca watuta* C., 1986d
Mirinae	Mirini	*Moroca wauensis* C., 1986d
Mirinae	Mirini	*Morocisca pilosa* C., 1986 a
Mirinae	Mirini	*Neopeplus dogoni* Sch. in Ch., 2003
Mirinae	Mirini	*Peltidopeplus annulipes* Poppius, 1912a
Mirinae	Mirini	*Peltidopeplus yasunagai* Chérot et Pauwels, 2000
Mirinae	Mirini	*Proboscidocoris neoguineanus* Poppius, 1915a
Mirinae	Mirini	*Proboscidocoris scutellaris* Poppius, 1915a
Mirinae	Mirini	*Prolygus albocuneatus* C., 1987c
Mirinae	Mirini	*Prolygus alboscutellatus* C., 1987c
Mirinae	Mirini	*Prolygus biscutellatus* C., 1987c
Mirinae	Mirini	***Prolygus ehannoi* sp. nov. ***
Mirinae	Mirini	***Prolygus erimensis* (Poppius, 1914b)**
Mirinae	Mirini	***Prolygus femoralis* (Poppius, 1914b)**
Mirinae	Mirini	*Prolygus finisterrensis* C., 1987c
Mirinae	Mirini	*Prolygus kandanus* C., 1987c
Mirinae	Mirini	*Prolygus kebarensis* C., 1987c
Mirinae	Mirini	*Prolygus loriae* (Poppius, 1914b)
Mirinae	Mirini	*Prolygus maai* C., 1987c
Mirinae	Mirini	*Prolygus nakanaiensis* C., 1987c
Mirinae	Mirini	*Prolygus papuanus* (Poppius, 1914b)
Mirinae	Mirini	***Prolygus polhemusorum* sp. nov. ***
Mirinae	Mirini	*Prolygus punctialbus* C., 1987c
Mirinae	Mirini	*Prolygus quatei* C., 1987c
Mirinae	Mirini	*Prolygus stali* (Poppius, 1914b)
Mirinae	Mirini	*Prolygus watutensis* C., 1987c
Mirinae	Mirini	***Sabactiopus zhengi* sp. nov.***
Mirinae	Mirini	*Stenotus bivittatus* Poppius, 1915a

Table 3 (continued)

Mirinae	Mirini	*Stenotus brevicollis* Poppius, 1915a
Mirinae	Mirini	*Stenotus clypealis* Poppius, 1915a
Mirinae	Mirini	***Tinginotopsis camelus* Poppius, 1915a**
Mirinae	Mirini	*Tinginotopsis moifensis* C., 1987a
Mirinae	Mirini	*Tinginotopsis wauensis* C., 1987a
Mirinae	Mirini	*Tinginotum floraensis* C., 1987a
Mirinae	Mirini	*Tinginotum grandis* C., 1987a
Mirinae	Mirini	***Tinginotum knowlesi* (Kirkaldy, 1908a)**
Mirinae	Mirini	*Tinginotum rubrovenosus* C., 1987a
Mirinae	Mirini	*Tinginotum virescens* Poppius, 1914a
Mirinae	Mirini	*Tolongia gressitti* (C., 1988)
Mirinae	Mirini	***Warrisia huonensis* (Poppius, 1914b)**
Mirinae	Mirini	***Waucoris keyensis* (Poppius, 1915a)**
Mirinae	Mirini	***Waucoris longipes* (Poppius, 1915a)**
Mirinae	Mirini	***Waucoris papuanus* (Poppius, 1915)**
Mirinae	Mirini	*Waucoris poppiusi* Chérot et Malipatil, 2016
Mirinae	Mirini	*Waucoris tricolor* Chérot et Malipatil, 2016
Mirinae	Mirini	***Waucoris wauensis* C., 1987b**
Mirinae	Stenodemini	*Acomocera elongata* (Distant, 1904c)
Mirinae	Stenodemini	*Chaetedus rutilans* Eyles, 1975
Mirinae	Stenodemini	*Lasiomiris albopilosus* (Lethierry, 1888)
Mirinae	Stenodemini	*Lasiomiris neoguineanus* C. et Afonso, 1977
Mirinae	Stenodemini	*Notostiropsis plebejus* Poppius, 1914a
Mirinae	Stenodemini	*Stenodema javanicum* Poppius, 1914a

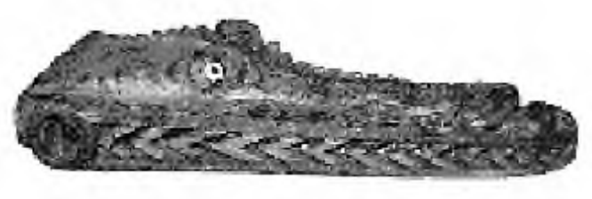
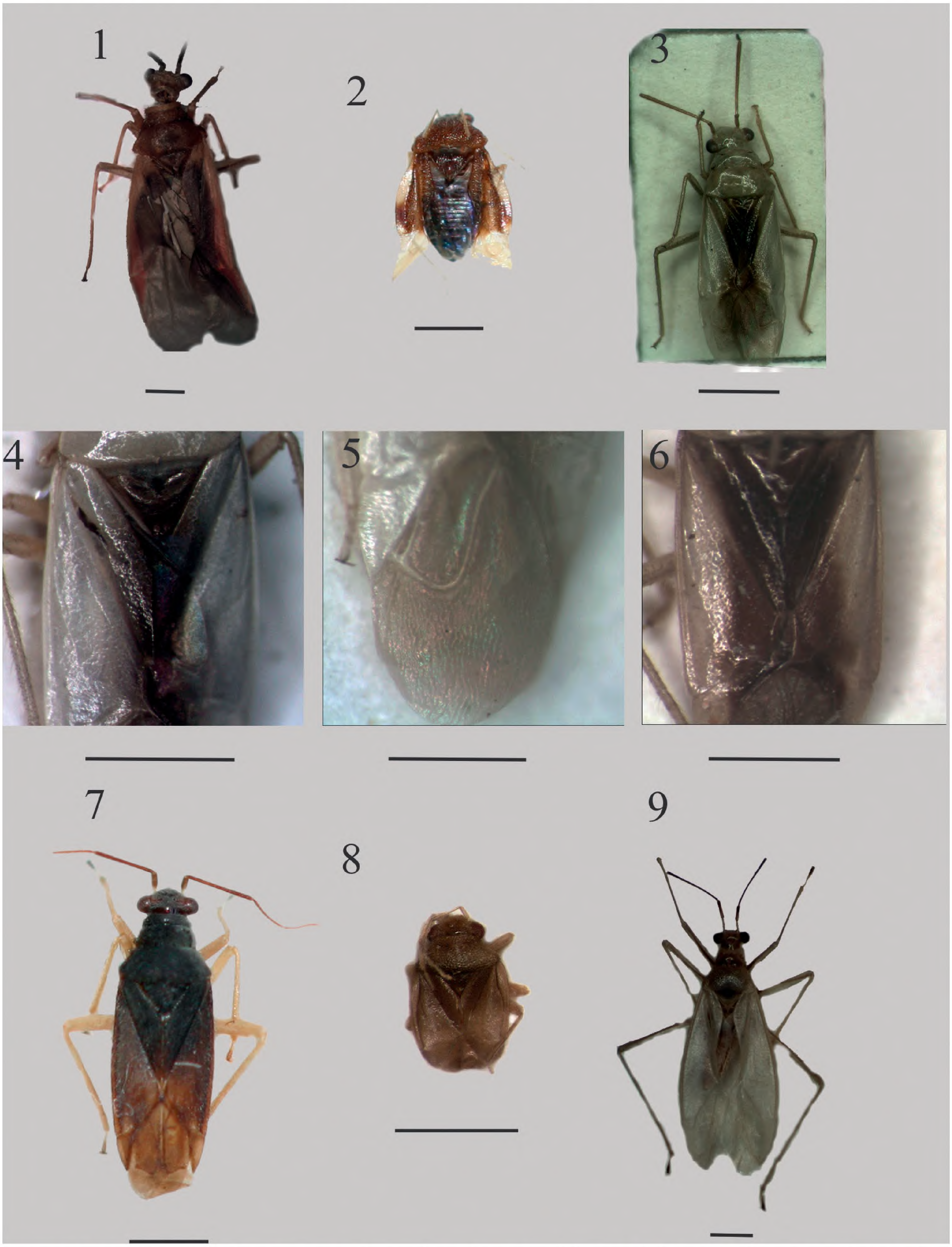
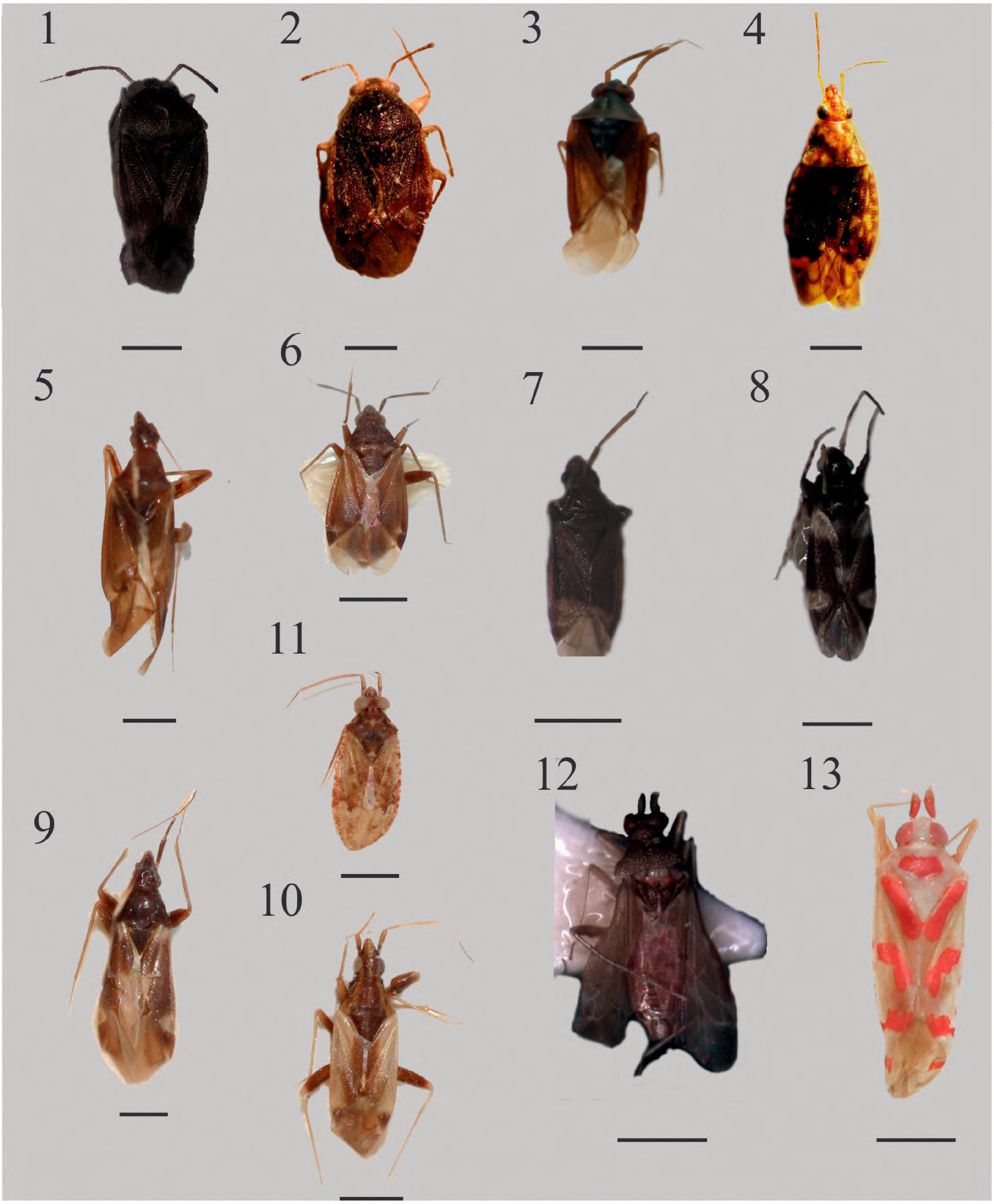


Plate 7



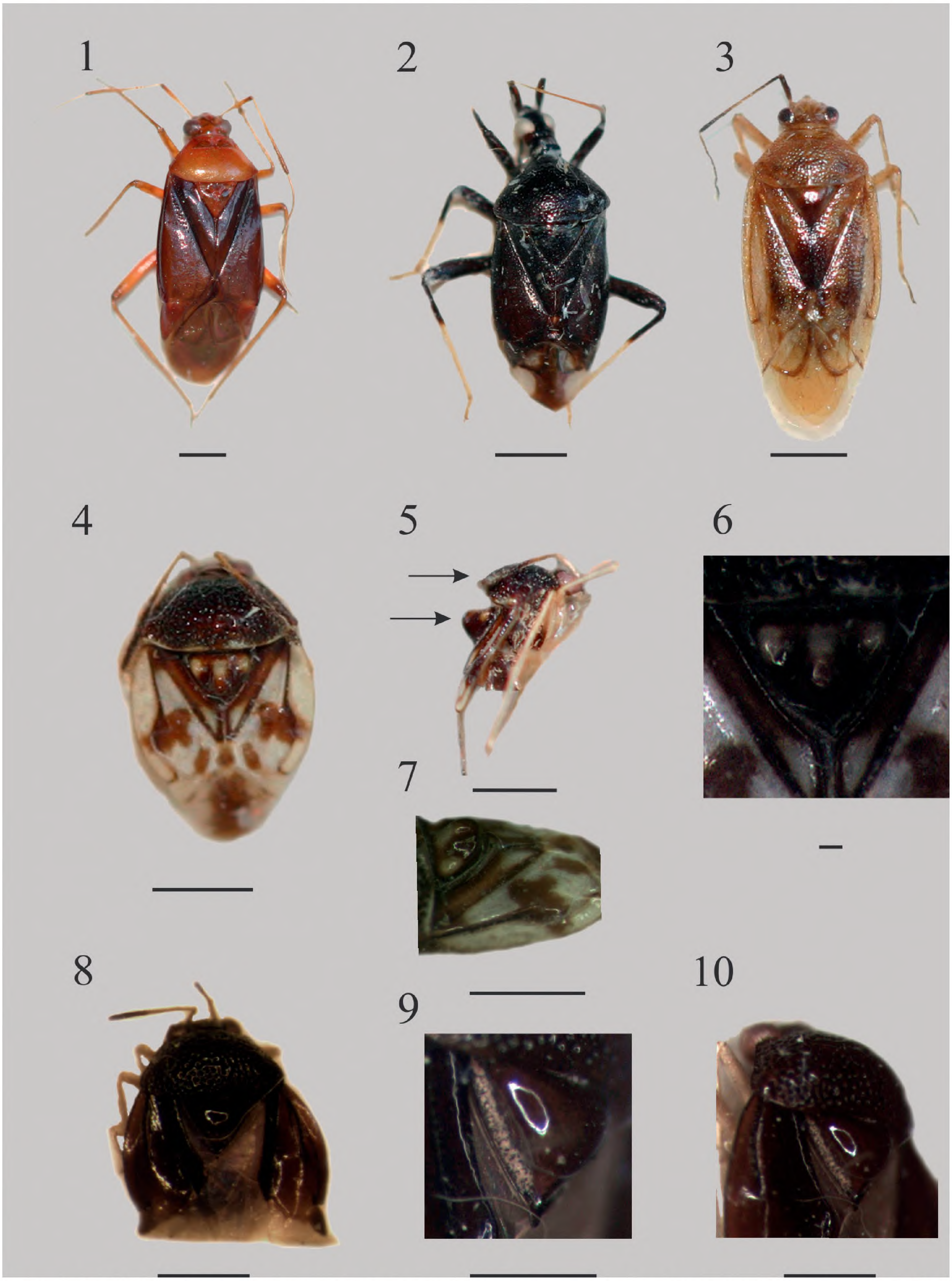
Figures 1-9. Miridae from Baiteta Forest. Bryocorinae, Eccritotarsini, dorsal view. 1 – *Bromeliaemiris morobensis* Carvalho, 1981a (FC n° 4141); 2 – *Bryocorellisca pilosa* Carvalho, 1981 (FC n° 5139); 3-6 – *Carpinterocoris brailovskyi* gen. nov., sp. nov; 3 – Habitus, paratype ♀ FC n° 5087; 4-6 – Variability of hemelytral colouration; 4-5 – Paratype ♀ FC n° 4142; 6 –Paratype ♀ FC n° 5085; 7 – *Harpedona gressitti* Stonedahl, 1988b (FC n° 5126); 8 – *Nabirecoris minutus* Carvalho, 1981 (FC n° 5127); 9 – *Prodromus oculatus* (Poppius, 1912e) (FC n° 5125) [scale bars 1 mm].

Plate 8



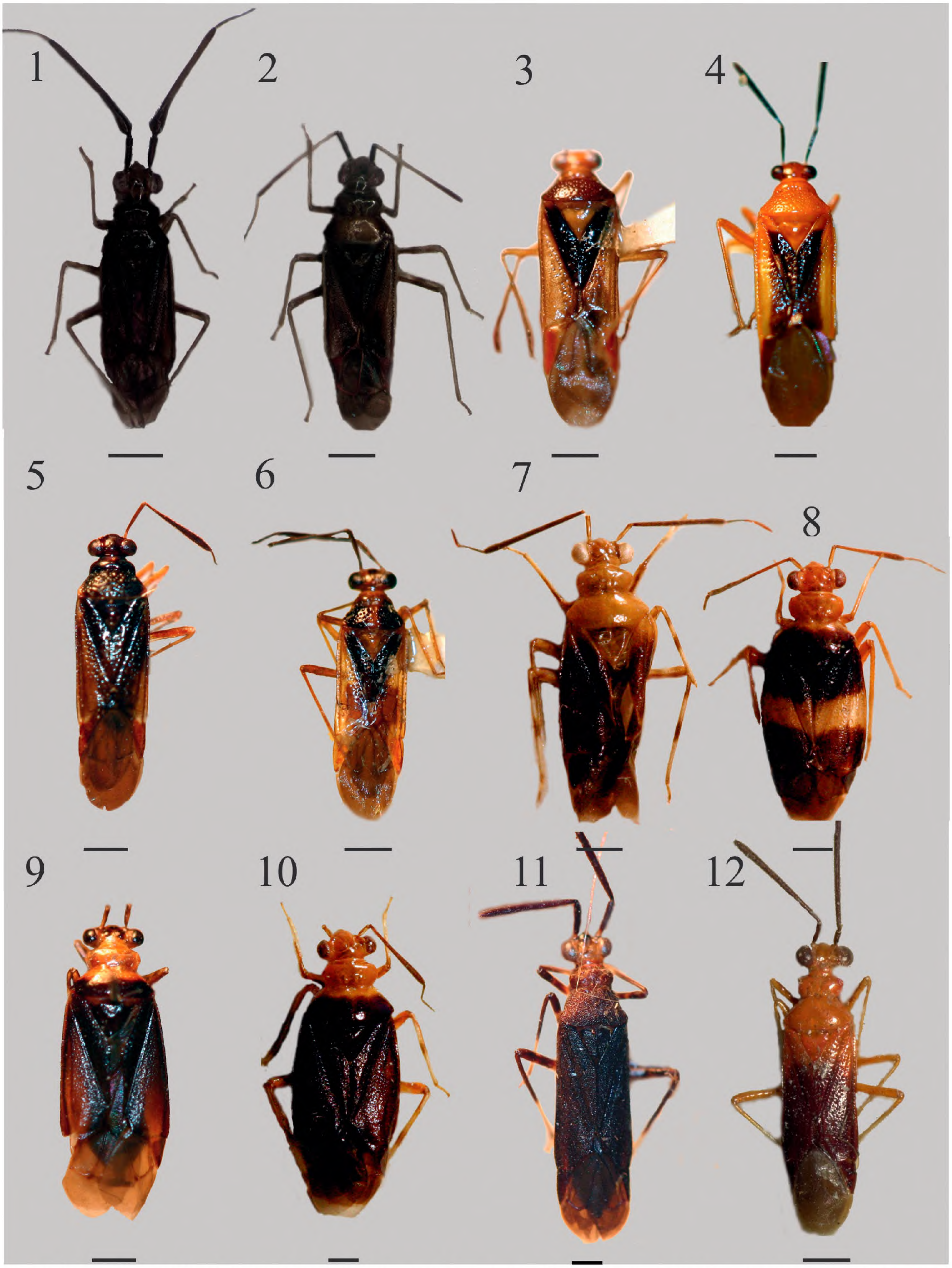
Figures 1-13. Miridae from Baiteta Forest. Cylapinae, dorsal view. 1 – *Bakeriola* sp. FC n 5121; 2 – *Bothriomiris* sp. (FC n° 4162); 3 – *Bironiella metallescens* Poppius, 1909 (FC n° 5075a); 4 – *Cylapofulvius punctatus* Poppius, 1909, lectotype ♂; 5 – *Fulvius constanti* Gorczyca, 2004 (FC n° 4175); 6 – *Fulvius nigricornis* Poppius, 1909 (FC n°4176); 7 – *Fulvius pallidus* Poppius, 1909 (FC n° 4168); 8 – *Fulvius stysi* Chérot, Gorczyca, 2008, paratype (FC n° 5140); 9 – *Fulvius subnitens* Poppius, 1909 (FC n° 4165); 10 – *Fulvius variegatus* Poppius, 1909 (FC n° 4162); 11 – *Peritropis sulawesica* Gorczyca, 2006b; 12 – *Palaucoris novaguineae* (Ghauri, 1975) (FC n°5079); 13 – *Vanniusoides brevis* (Poppius, 1909) (FC n° 5139) [scale bars 1 mm].

Plate 9



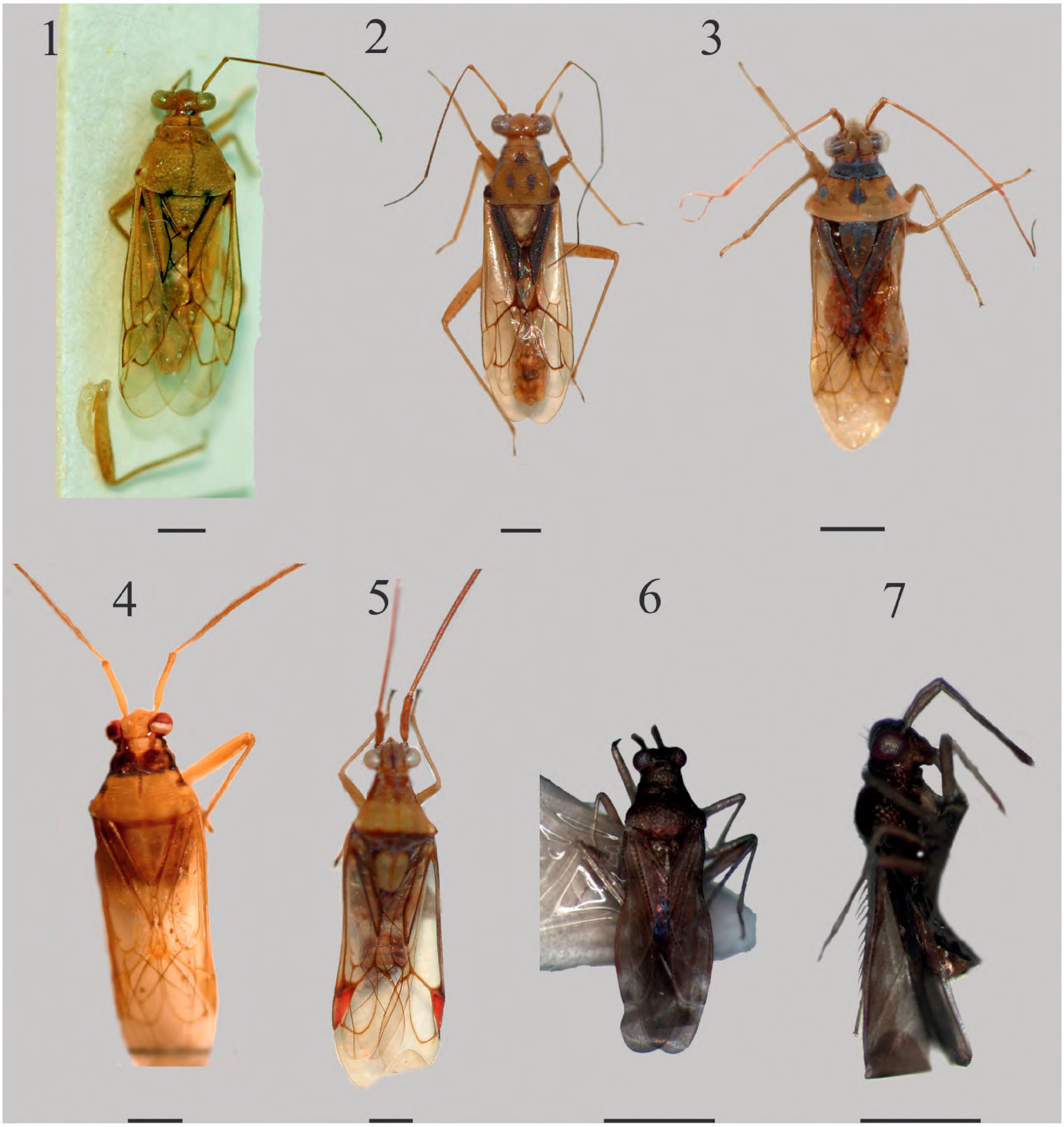
Figures 1-10. Miridae from Baiteta Forest. Deraeocorinae, Deraeocorini. 1 – *Araspus gressitti* Carvalho, 1984a (FC n° 5119); 2 – *Fingulus novobritanicus* Stonedahl, Cassis, 1991 (FC n° 4143); 3 – *Papuacoris vittatus* (Reuter, 1908) (FC n° 5116); 4-7 – *Missacoris sigwaltae* gen. nov., sp. nov., holotype ♀: 4 – Habitus, dorsal view (legs removed); 5 – ditto, lateral view; 6 – Scutellum and clavii (detail), dorsal view; 7 – Scutellum and left hemelytra, latero-dorsal view; 8-10 – *Baitetacoris turschi* gen. nov., sp. nov., paratype (FC n° 5109): 8 – Habitus, dorsal view; 9 – Scutellum, lateral view; 10 – Scutellum and left clavus, latero-dorsal view [scale bar 1 mm, except fig. 6 scale bars 0.1 mm and figs 5, 8-10 scale bars 0.5 mm].

Plate 10



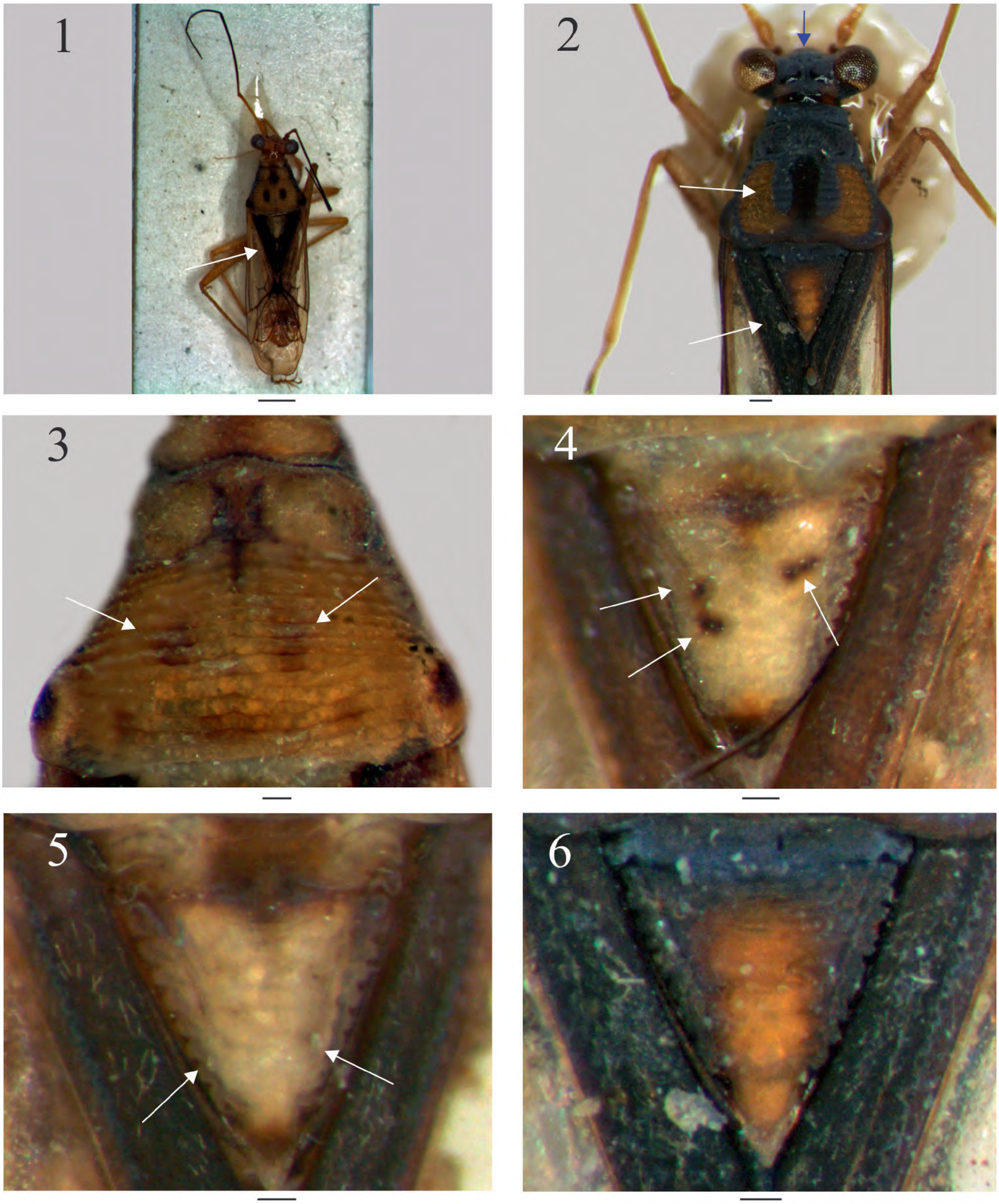
Figures 1-12. Miridae from Baiteta Forest with several taxa examined for comparison. Deraeocorinae, Saturniomirini, dorsal view. 1-2 – *Garainamiris antennatus* Carvalho, 1981b, ♂ (FC n° 4154) and ♀ (FC n° 4151); 3 – *Cheesmaniella clavonigra* Carvalho, 1984 (FC n° 4212); 4 – *Cheesmaniella fasciata* Carvalho, 1984 (FC n° 4211); 5 – *Cheesmaniella nigra* Carvalho, 1984 (FC n° 4210); 6 – *Cheesmaniella notomaculata* Carvalho, 1984 (FC n° 4209); 7 – *Imogen bicolor* (Poppius, 1912b) (FC n° 4146); 8 – *Imogen fasciatus* Carvalho, 1983 (FC n° 4144); 9 – *Imogen formosa* Kirkaldy, 1905 (FC n° 4206); 10 – *Imogen papuensis* Carvalho, 1983 (FC n° 4145); 11 – *Saturniomiris lugens* (Walker, 1873) (FC n° 4208); 12 – *Synthlipsis ternatensis* (Distant, 1904), syntype (FC n° 5353) [scale bars 1 mm].

Plate 11



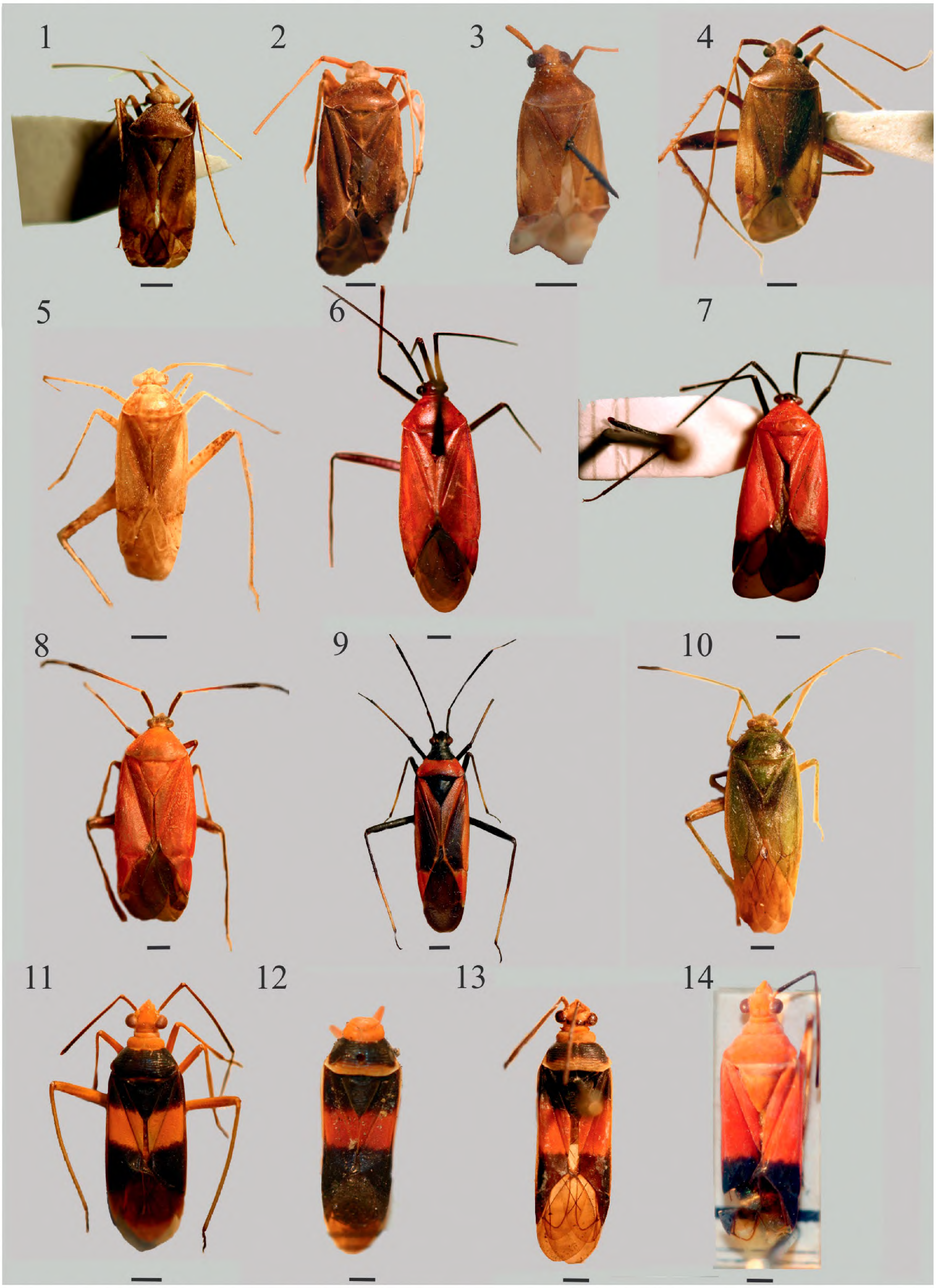
Figures 1-7. Miridae from Baiteta Forest. Mirinae Hyalopeplini and Cylapinae Vanniini, dorsal view. 1 – *Guisardinus neoguineanus* Carvalho in Carvalho et Gross, 1979 (FC n° 3853); 2 – *Guisardus strigicollis* Poppius, 1912a (FC n° 3937); 3 – *Hyalopeplinus papuensis* Carvalho in Carvalho et Gross, 1979 (FC n° 3832); 4 – *Hyalopeploides cyanescens* Poppius, 1912a (FC n° 351); 5 – *Hyalopeplus similis* Poppius, 1912c (FC n° 3833); 6-7 – *Palaucoris novaguineae* (Ghauri, 1975): 6 – Habitus, dorsal view (FC n°5080); 7 – ditto, lateral view (FC n° 5082) [scale bars 1 mm].

Plate 12



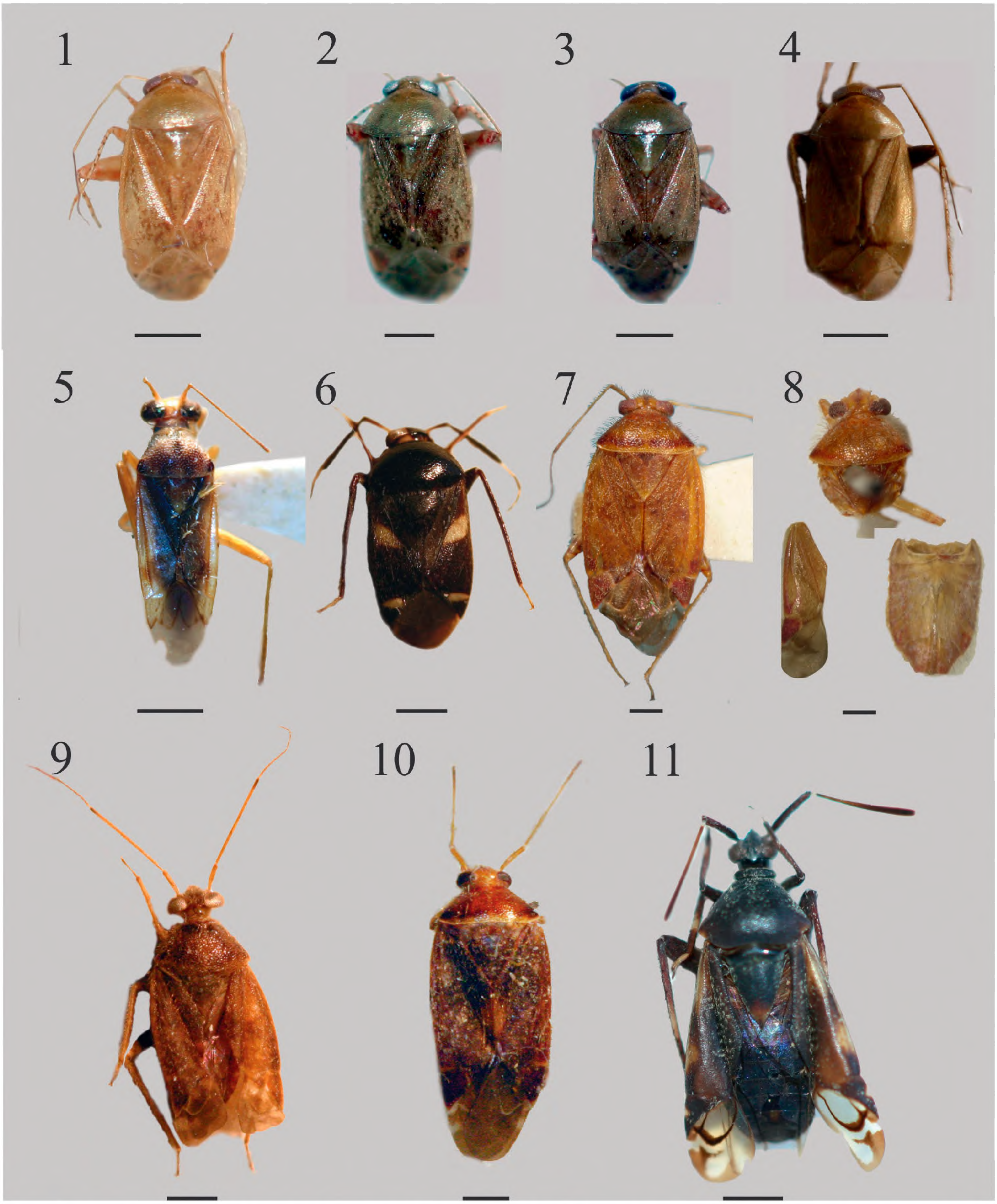
Figures 1-6. *Guisardus strigicollis* Poppius, 1912. Colouration variability in Baiteta Forest's specimens. 1 – ♀ (FC n°3886); 2 – ♂ (FC n° 3917) with dark head, pronotum and scutellum; 3 – ♂ (FC n° 3868) with pronotal spot almost erased; 4 – Same ♂ specimen, detail of the scutellum (arrows indicate each of the three dark punctures); 5 – ♂ (FC n° 3867), detail of the scutellum (arrows showing clear punctures); 6 – ♂ (FC n° 3868), detail of the scutellum [scale bar 0.1 mm, except fig. 1 scale bar 1 mm and fig. 2 scale bars 0.2 mm].

Plate 13



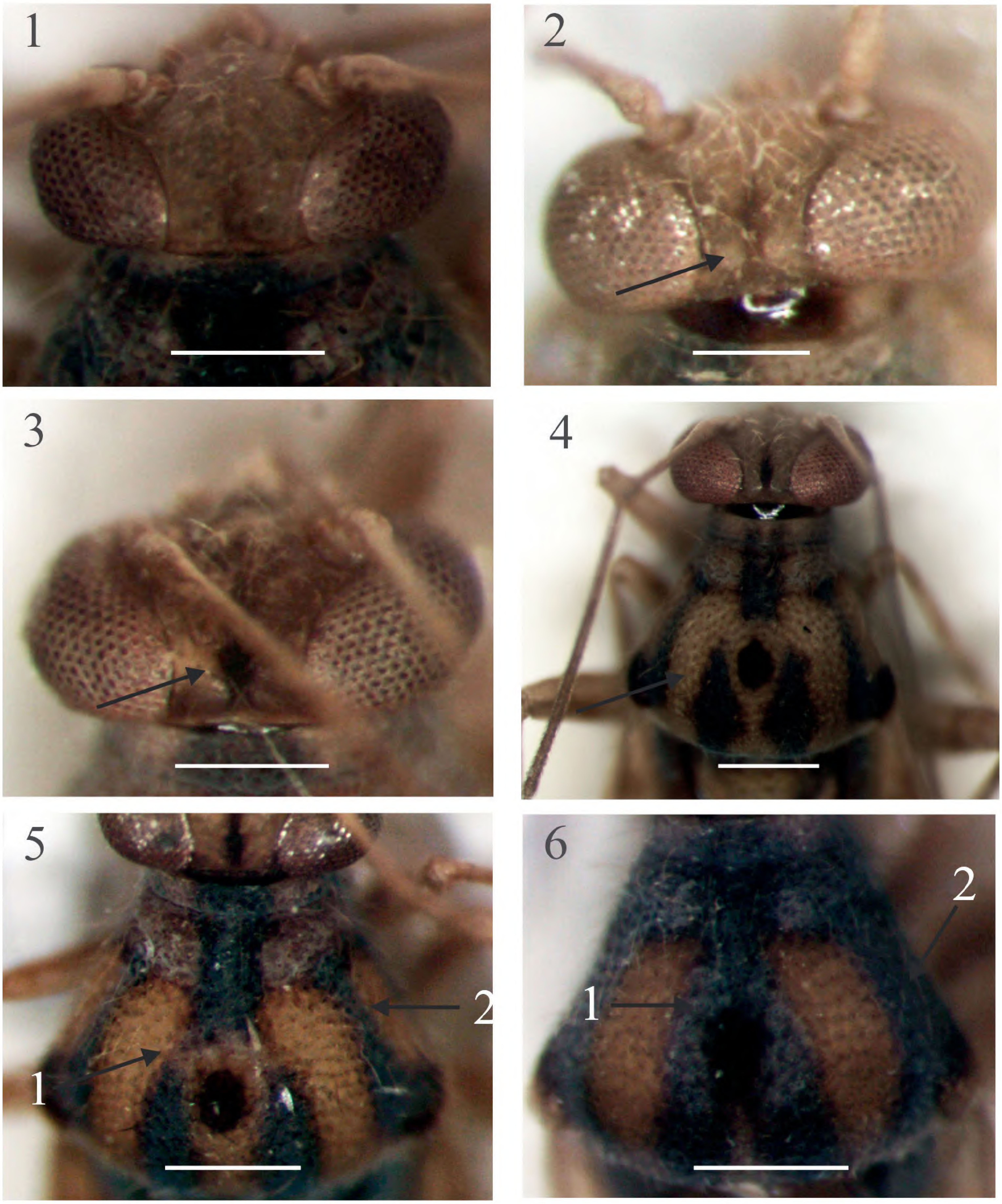
Figures 1-14. Miridae from Baiteta Forest with several taxa examined for comparison. Mirinae, Mirini, dorsal view. 1-4 – *Adelphocorisella brunnescens* (Poppius, 1915a): 1 – ♂ (FC n° 3839); 2 – ♀ FC n° 268; 3 – Holotype ♂ from Simbang, Huon Golf (ZMHF); 4 – ♀ (FC n° 4263); 5 – *Adelphocorisella lespedezae* Miyamoto, Yasunaga, 1993, paratype ♀ (FC n° 204); 6-7 – *Macrolygus rubrus* (Carvalho, 1987b): 6 –Paratype ♂ (FC n° 4259); 7 – ♂ (FC n° 3850); 8 – *Miyamotoa rubicunda* Yasunaga, 1990, paratype ♀ (FC n° 223); 9 – *Gigantomiris jupiter* Miyamoto, Yasunaga, 1988, ♂ (FC n° 219); 10 – *Macrolygus viridulus* Yasunaga, 1992, ♀ (FC n° 230); 11 – *Aristopeplus imperialis* Poppius, 1912a, ♀ (FC n° 3852); 12-13 – *Aristopeplus divisus* (Walker, 1873), holotype ♂ (FC n° NE14) and ♀ (FC n° 1317) respectively; 14 – *Aristopeplus regalis* Poppius, 1912, lectotype ♀ (FC n° 4934) [scale bars 1 mm].

Plate 14



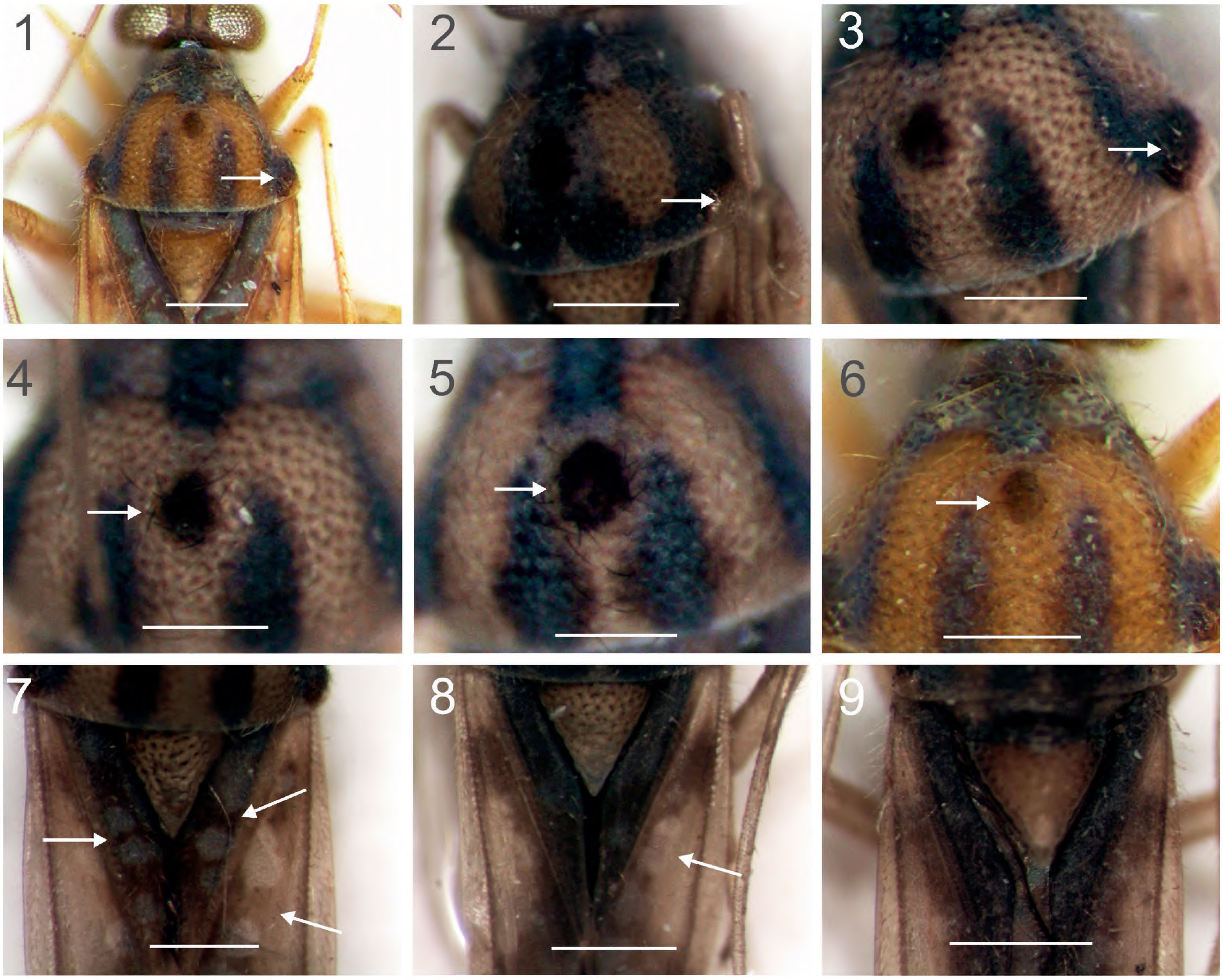
Figures 1-11. Miridae from Baiteta Forest with several taxa examined for comparison. Mirinae, Mirini. 1-3 – *Prolygus ehannoi* sp. nov., variability in patches extension and shape, dorsal view: 1 – Paratype ♀ (FC n° 4027); 2 – Paratype ♀ (FC n° 4019); 3 – Paratype ♂ (FC n° 4018); 4 – *Prolygus polhemusorum* sp. nov., paratype, dorsal view FC n° 4015; 5 – *Argenis incisuratus* (Walker, 1873), dorsal view (FC n° 4413); 6 – *Bertsa lankana* (Kirby, 1891) (FC n° 3894); 7-9 – *Diognetus intonsus* Distant, 1904c, dorsal view: 7 – Lectotype ♀; 8 – Lectotype ♀ of *Diognetus literatus* (Distant, 1909b) syn. nov., head, left hemelytra and abdomen, ventral view; 9 – ♂ (FC n° 3989) from Baiteta Forest, dorsal view; 10 – *Diognetus pilosus* (Poppius, 1914a), holotype ♀ of *G. pilosa* comb. nov. FC n° 935, dorsal view; 11 – *Eurystylus costalis* Stål, 1871, dorsal view (FC n° 4014a) [scale bars 1 mm].

Plate 15



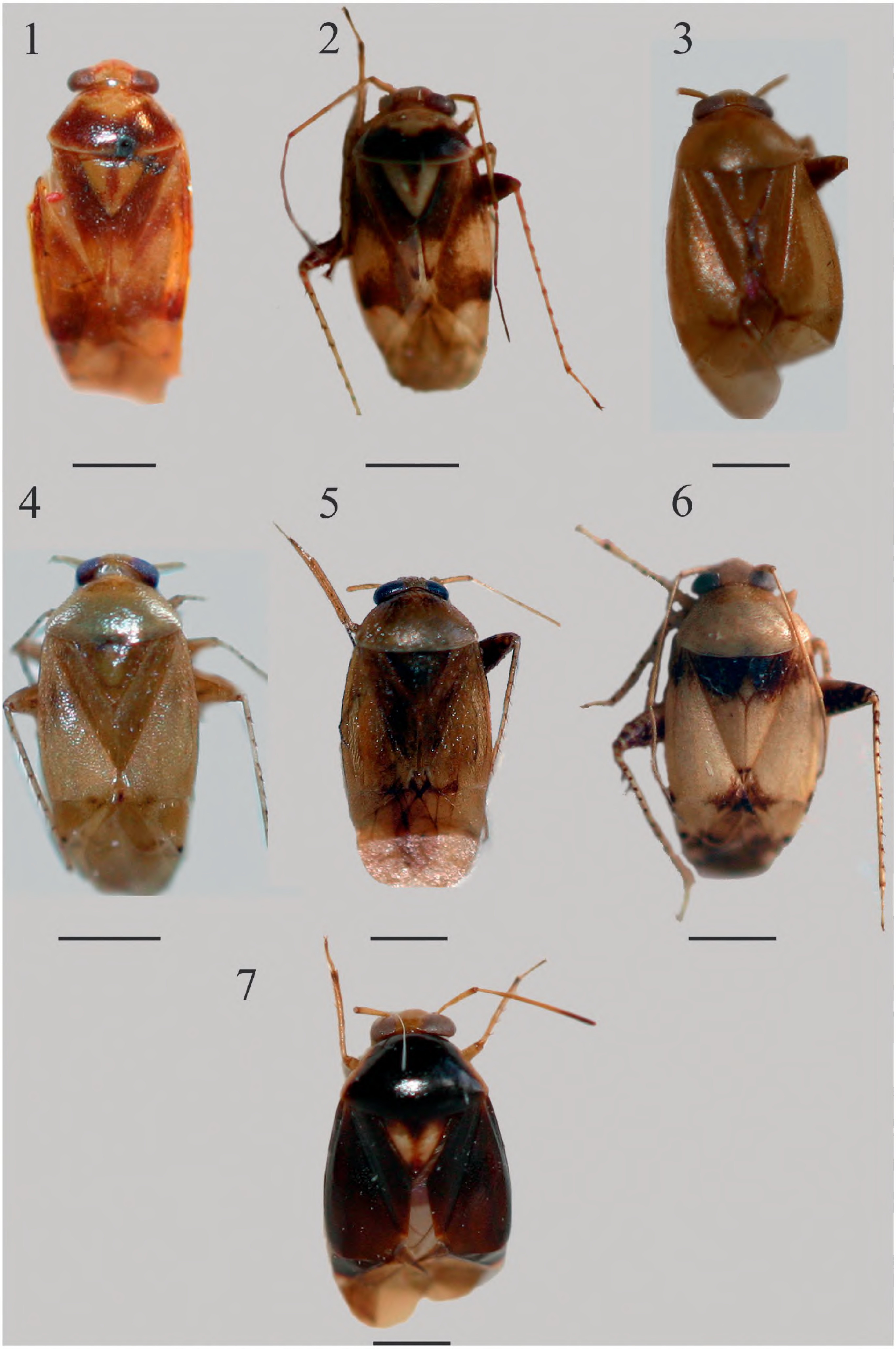
Figures 1-6. Variability of several character states in *Argenis incisuratus* (Walker, 1873) from Baiteta Forest (see text for details). 1-3 – Coloration of dorsal surface of head: 1 – ♂ (FC n° 3815); 2 – ♂ (FC n° 3810); 3 – ♂ (FC n° 3816) [scale bar 1 mm]; 4-6 – Colouration of pronotum: 4 – ♂ (FC n° 3799); 5 – ♀ (FC n° 4011); 6 – ♂ (FC n° 3798) [scale bars 0.5 mm].

Plate 16

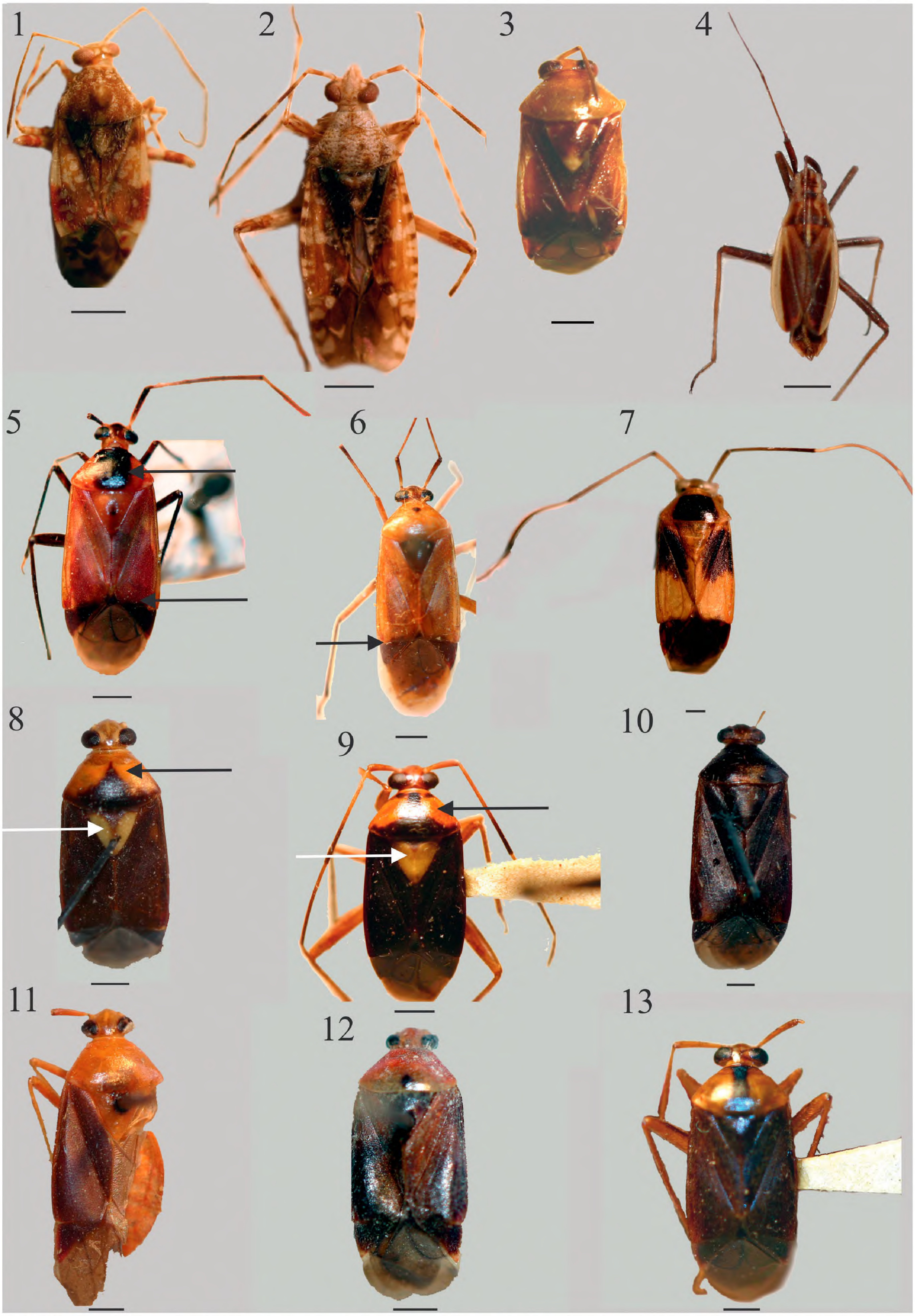


Figures 1-9. Variability of several character states in *Argenis incisuratus* (Walker, 1873) from Baiteta Forest (see text for details). 1-3 – Development and colouration of globose humeral angles of pronotum: 1 – ♂ (FC n° 4009); 2 – Specimen of unknown sex (FC n° 3814); 3 – ♂ (FC n° 3800); 4-6 – Development and colouration of pronotal hump: 4 – ♂ (FC n° 3800); 5 – ♂ (FC n° 3806); 6 – ♂ (FC n°4009); 7-9 – Development of silvery patches of clavus; 7 – ♂ (FC n° 3800); 8 – Specimen of unknown sex (FC n° 3814); 9 – ♂ (FC n° 3825) [scale bars 0.5 mm].

Plate 17



Figures 1-7. Miridae from Baiteta Forest with several taxa examined for comparison. Mirinae, Mirini, dorsal view. 1-2 – *Prolygus erimensis* (Poppius, 1914a): 1 – Lectotype ♀ (FC n° 5064); 2 – ♀ (FC n° 4068); 3 – *Prolygus* cf. *femoralis*, ♂ (FC n° 4031) (legs and antennae partially removed); 4-5 – *Prolygus polhemusorum* sp. nov.: 4 – Paratype ♀ (FC n° 5136a); 5 – Holotype ♂ (FC n° 4053); 6 – "*Lygus*" incertae sedis near to *Prolygus*; 7 – *Sabactiopus zhengi* sp. nov., holotype ♂ [scale bars 1 mm].



Figures 1-13. Miridae from Baiteta Forest with several taxa examined for comparison. Mirinae, Mirini and Stenodemini, dorsal view. 1 – *Tinginotopsis camelus* Poppius, 1915a, ♀ (FC n° 3899); 2 – *Tinginotum knowlesi* (Kirkaldy, 1908), ♂ (FC n° 3904); 3 – *Warrisia huonensis* (Poppius, 1914b), ♂ (FC n° 1083); 4 – *Lasiomiris neoguineanus* Carvalho, Afonso, 1977 (FC n° 4071); 5-7 – *Waucoris wauensis* Carvalho, 1987b: 5-6 – Paratypes ♀♀ (respectively FC n°s 4266 and 4265); 7 – ♀ from Baiteta Forest (FC n°3854); 8-9 – *Waucoris papuanus* (Poppius, 1915a): 8 – Holotype ♀; 9 – ♀ from Normanby Island (FC n°4261); 10 – *Waucoris longipes* (Poppius, 1915a), holotype ♂; 11-13 – *Waucoris keyensis* (Poppius, 1915a): 11 – ♂ from Bismarck Archipelago (ZMHF); 12 – Holotype ♀; 13 – ♀ from Bisinamu (FC n° 4262) [scale bars 1 mm].